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THE WEST VIRGINIA

MEDICAL JOURNAL

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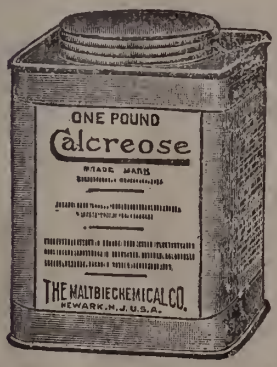
CALCREOSE

Calcreose—Creosote Effect



free from the disagreeable effects on the stomach may be obtained by administering CALCREOSE (Calcium creosotate), a mixture containing in loose chemical combination approximately equal weights of creosote and lime.

Write for "The Calcreose Detail Man."

THE MALTBIE CHEMICAL CO., NEWARK, NEW JERSEY

JAS. K. HALL, M. D.
.....O. B. Darden, M. D., Associate

PAUL V. ANDERSON, M. D.
P. G. Hamlin, M. D., Associate

WESTBROOK SANATORIUM

RICHMOND, VIRGINIA

The sanatorium is a privte institution of 135 beds, located in the Ginter Park suburb, midway between trolley lines, within ten minutes ride of the heart of the city, and on the Richmond-Washington National Automobile highway. Midway between the North and distant South, the climate of this portion of Virginia is almost ideal. Nearby are the many reminders of the Civil War, and many places of historic interest are within easy walking distance.

The plant consists of twelve separate buildings, most of which are new, located in the midst of a beautifully shaded fifty-acre lawn, surrounded by a hundred and twenty-acre tract of land. Remoteness from any neighbor assures absolute quietness.

The large number of detached buildings makes easy and satsifactory and congenial groupings of patients. Separate buildings are provided for men and women. Rooms may be had single or en-suite with or without private bath. A few cottages are designed for individual patients.

The buildings are lighted by electricity, heated by hot water, and are well supplied with baths. The water supply for the entire institution is derived from an artesian well on the grounds, of approved therapeutic value.

The scope of the work of the sanatorium is limited to the diagnosis and treatment of nervous and mental disorders, alcoholic and drug habituation. Every helpful facility is prvoided for these purposes, and the institution is well equipped to care for such patients. It affords an ideal place for rest and upbuilding under medical supervision. Four physicians reside at the sanatorium and devote their entire attention to the patients. A chartered training school for nurses is an important part of the institution in providing especially equipped nurses—both men and women—for the care of the patients.

Systematized out-of-door employment constitutes an important feature of the treatment. Wonderful work in the arts and crafts is carried on under a trained teacher. There are bowling, tennis, croquet, billiards and pool.

Thee sanatorium maintains its own truck farm, dairy and poultry yard.

ILLUSTRATED BOOKLET ON REQUEST

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THE UNSOLVED PROBLEMS OF PREVENTIVE MEDICINE

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From the Dept. of Pathology and Bacteriology, West Virginia University, Morgantown, W. Va.

(Address delivered before the West Virginia State Medical Association, Charleston, May 25, 1921.)

In ancient times civilizations were born, grew for a few generations and fell into decay. Conquests brought disease, and civilizations were obliterated by contagion. History reveals to us numerous instances in which heroes brought to their rejoicing countries, with their prisoners of war, pestilences which vanquished the victors. The Greeks were unable to cope with malaria, yellow fever and bubonic plague. The medicine of Hippocrates, the philosophy of Plato, and the science of Aristotle could not save Greece from the ravages of disease. The great Roman Empire, which promised to encircle the earth, met with a similar fate. Malaria, yellow fever, smallpox, typhus, cholera, and dysentery have been the destroyers of civilizations and determiners of history. They darkened the world in the middle ages, when whole nations went into coma and died.

No scientific knowledge of the causation of disease, and hence of disease prevention and treatment, was possessed by mankind until the last half century. Diseases were thought to be due to the entrance into the body of evil spirits beyond the control of man. We are just emerging from a past in which superstition and mysterious influences were invoked to explain the spread of disease. Man's progress from the marshes of ignorance to the uplands of intelligence has been slow and halting. Even at the present time only a small part of the earth is illuminated by the light of knowl-

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edge. Much of it is still covered by clouds of ignorance. Today only one percent of the population of the world has medical care and sanitary regulations. Is it any wonder that epidemic diseases exist, and spread in times of war?

All of this is a matter of great importance, for the successful conquest of disease involves wide cooperation of all the people, and this is impossible without a fair understanding of, and confidence in, the hygienic and sanitary measures necessary for the control and prevention of communicable diseases. Even more important is the education of the public, in the conquest of those diseases which our present knowledge and practice of preventive medicine have been unable to control. I mean the unsolved problems of preventive medicine: Degenerative diseases of the heart, kidney and blood vessels; tuberculosis; cancer; acute respiratory diseases (pneumonia, influenza, scarlet fever, measles, etc.); venereal diseases; metabolic diseases (diabetes, dietary diseases).

Typhoid fever, cholera, malaria, typhus fever, yellow fever, hookworm, can be controlled by sanitary measures. We need only to control the environment—purify water supplies, destroy insects, administer quinine, prevent food contamination—and these diseases will disappear from any country. But not so with cancer, acute respiratory diseases, tuberculosis, and degenerative diseases of heart, blood vessels and kidney. The latter diseases have been increasing rather than decreasing.

We have conquered many of the infectious diseases by organized administrative efforts at betterment of living conditions, sanitation, immunization, isolation and quarantine, disinfection (typhoid, cholera, typhus, malaria, yellow fever, rabies, tetanus, diphtheria, smallpox, etc.). We can conquer others by application of these same principles. But against many of the respiratory tract infections we are less successful at the present time (tuberculosis, influenza, pneumonia, measles, poliomyelitis, epidemic encephalitis, scarlet fever, meningitis, etc.). These latter can at present be eradicated only by personal hygiene applied to the individual, the safeguarding of one person against another.

The control of the contagious diseases transmitted by infectious droplets from the respiratory tract is made even more difficult by the existence in practically all of these diseases of so-called "germ-carriers," people who are apparently well but harbor and spread disease germs. This control of the diseased individual and the germ carrier is the most difficult problem in the prevention of communicable disease.

It necessitates early recognition of all cases of contagious disease, discovery of germ carriers and their proper treatment and isolation, isolation and quarantine of all cases, an efficient health organization, and education of the public in the fundamental principles of personal hygiene. In diseases like influenza, scarlet fever, measles, and epidemic encephalitis, where the germ is a filterable virus, the difficulties are even greater, since we have no laboratory methods at present for the diagnosis of the individual case.

Unless we can discover the germ and develop an effective preventive vaccination we have only one line of attack in some of the recurring epidemic diseases like influenza, poliomyelitis, and epidemic encephalitis. This is the eradication of their endemic foci in various parts of the world. Such work could be accomplished only by some international organization such as the League of Red Cross Societies. The task will be a very difficult one, much more so than the eradication of malaria and yellow fever by mosquito destruction, or of typhoid, cholera and dysentery by water purification and vaccination.

With the conquest of communicable diseases by the application of our knowledge of bacteriology, immunology, and sanitary engineering, the average duration of life has been greatly lengthened in the last half century. The result has been that more people reach middle life, and consequently more cases of cancer, and cardiac, vascular and renal disease occur. Formerly only the highly resistant or physically fit were the survivors. Now, with our developments in preventive and curative medicine many weaker individuals also survive. Perhaps this is why the average expectation of life at ages beyond 60 is not as high as it was hundreds of years ago. For, inherited constitution fundamentally and primarily determines how long an individual will live (Pearl).

At any rate the chronic diseases of the latter half of life, cancer, nephritis, organic heart disease, are increasing in most civilized countries and becoming the most important problems in preventive medicine. As we have at present little definite knowledge of their causes it may be of value to briefly review the status of our views regarding these diseases, and to suggest ways of reducing the great mortality caused by them. Not only do we lack knowledge regarding their cause, but we do not even know what part heredity plays in their production. Is it not possible that inherited diathesis is an important factor in predisposing to these degenerative and neoplastic diseases? A knowledge of the hereditary and constitutional factors determining death from various diseases might be of great value. The problem is one in biology. In this connection it is interesting to note that Dr. Pearl has found from his statistical studies on influenza that the influenza epidemic mortality was closely correlated with the three great causes of death, tuberculosis, diseases of the heart, and diseases of the kidney. The severe epidemic killed chiefly those subject to these constitutional diseases, which are concerned with functional breakdown of the three fundamental organ systems of the body. In what other acute diseases is there such a relationship? We can not answer at the present time.

If the existence of constitutional disease predisposes to acute infections with a mortality higher than among the physically fit, must we not give more attention to the findings of the Provost Marshal General's Office on the physical examination of several millions of men in the prime of life? 29.59% were found disqualified for military service by local boards, and an additional 8% were rejected on re-ex-

amination by camp surgeons. Thus, 37% of our young men were unfit for military duty by reason of physical and mental defects. What must be the percentage in the higher age groups? Of the defects which unfitted over one-third of all the men examined 88% can be classified under six heads:

Diseases of bones and joints	26%
Special senses	15%
Cardio vascular	13%
Nervous and mental	10%
Tuberculosis	9½%
Defective physical development	8%

Much of this physical disability begins in early life when it is preventable. Over 80% of the school children examined in New York City had major or minor illnesses or defects, many curable. They were decayed teeth, enlarged tonsils and adenoids, enlarged lymph glands, errors of refraction, middle ear disease, tuberculosis, etc. Are not many of these focal infections, from which germs are carried to various organs and tissues causing most cases of organic heart disease, nephritis, arteriosclerosis, generalized tuberculosis? The recent surveys made at Framington, Massachusetts, indicate that 70% or more of any typical group of people needs medical or dental advice or treatment for serious or minor ailments. The cheapness of human life is evidenced by the fact that there are over 500,000 deaths annually from communicable diseases, over 80,000 deaths from accidents, and over five millions sick.

The principal causes of death in the Registration Area of the United States in 1916, before the influenza epidemic and the war, were:

Heart disease	114,000
Tuberculosis	101,000
Pneumonia	98,000
Bright's disease	75,000
Cancer	58,000

As this area included only 70% of the total population of the United States, and only 44% of the total land area of the country, the deaths from the above causes for the entire country were approximately:

Heart disease	145,000
Tuberculosis	130,000
Pneumonia	125,000
Bright's disease	100,000
Cancer	80,000

Let us consider each of these unsolved problems of preventive medicine, calling attention chiefly to what can be done at present to reduce their growing mortality.

Cancer

While 77,000 American soldiers gave their lives for their country during the two years of our participation in the great war, about 180,000 people died of cancer in the United States. Few people realize the great toll of life taken by this disease. Cancer causes at present one out of every ten deaths in people past the age of 40. It is responsible for one in every eight deaths in women, and one in every thirteen in men above that age. More people over 40 are killed by cancer than by tuberculosis or pneumonia. About 95% of deaths from cancer occur in people above 35. Between the ages of 35 and 45 three times as many women as men die of cancer. It is estimated that in 1920 the cancer mortality in the United States was close to 100,000.

What a small percentage of cases of surgically curable cancer is detected in the early stages! Cancer can be cured in a high percent of cases when seen early, for it is then a local disease. The average patient waits about twelve months before consulting a physician or sur-

geon. Unfortunately cancer is often not accompanied by pain, hence neglected until it has become inoperable.

Of the 90,000 deaths from cancer occurring annually we find the organs affected as follows:

Stomach and liver	35,000
Female generative organs	13,000
Female breast	8,500
Mouth and tongue	3,500
Large intestine and peritoneum	12,000
Skin	3,500
Other organs and parts	14,500

The exciting cause of cancer is at present unknown. We may look upon it as abnormality of growth, a condition in which certain cells of the body multiply unchecked and usually serve no useful function. Perhaps certain hereditary factors cause an increased sensitiveness to mechanical and chemical stimuli in certain organs and tissues of the body. There can be no doubt that mechanical and chemical irritation play an important role in the causation of cancer. Perhaps the chemical stimuli are products of cell necrosis which, under certain local conditions influenced by heredity, internal secretions, and abnormalities in early embryonic development, cause the functional energies of the cell to be transformed into growth energy. Similar growth can also be produced by chemical agents such as aniline dyes, coal tar derivatives, also paraffin, x-ray, burns, chronic inflammations. These facts suggest that there are probably many exciting influences which stimulate the cell proliferation. In certain sarcomas of lower animals a filterable virus has been obtained. In plant cancer a bacillus has been found. But in human neoplasms no micro-organism has thus far been shown to cause the disease. Given then an increased sensitiveness to growth stimuli, these chemical and mechanical agents acting for a sufficient length of time will cause neoplastic growth.

It is obvious from this brief discussion of the etiology of cancer that our only hope today is early recognition of cancer and pre-cancerous conditions, with proper surgical, and radium treatment. This can be done only by education of the public regarding the early signs of cancer and the necessity of prompt and efficient treatment. Here the physician, the health officer and the nurse have an obligation to the public. They can receive aid from the National and State Socities for the Control of Cancer. The surgeon must make use of the trained pathologist and co-operate with him in the diagnosis of his cases. The physician must recognize the cases in the pre-cancerous stage, or early stage of malignancy, or benignancy. The public health nurse is best able to advise women regarding the early symptoms and proper treatment of hard lumps in the breast, disease of the nipple, menstrual disturbances, etc.

Tuberculosis

There are over 1,000,000 cases of active tuberculosis in the United States, with perhaps another million of inactive or quiescent cases. In other words about 1% of the population of this country is suffering with the great white plague. About 130,000 die annually of this disease, one-tenth of all deaths from all causes, and about 30% of preventable deaths. The discovery of the fact that 95% of adults are infected with the germ of tuberculosis, and

that at least 60% of children have been infected at the age of 10 makes the situation more hopeful than it seems. In other words about 93% of the adult population become infected without developing active disease. They develop a degree of immunity which protects them against subsequent infection, unless that infection be massive or oft-repeated.

On the other hand, mild infection by way of the digestive tract, or less often the respiratory tract, in childhood may lie dormant for years only to produce active tuberculosis through lowered resistance caused by such diseases as diabetes, dietary deficiencies, measles, influenza, typhoid, pneumonia, etc. Massive infection in infancy or childhood is usually followed by an acute form of the disease with a high death rate especially during the first few years of life, when no immunity exists. The same is true of races of human beings, which not previously suffered infection. In other words, massive infection, or frequently re-infection, in the non-infected causes an acute form of tuberculosis. In the previously infected (occult, or benign or quiescent infection) such infection may produce a chronic, resistant form of tuberculosis, the type most often seen in adults.

It is clear that to solve the tuberculosis problem we must discover (1) an effective vaccination in childhood which will protect against subsequent infection or (2) a chemotherapeutic agent or specific drug that will cure the disease. With reference to vaccination the recent work of Shiga is very promising. He is using in children a vaccine of tubercle bacillus which is readily absorbed and gives only a slight reaction. It is an emulsion of a trypoflavin-fast strain of human bacillus, avirulent for the guinea-pig in doses of 1 mgr. sensitized by immune serum, and with the addition of a filtrate of the broth of erythrosin-fast culture. Very good results have been reported with this method of vaccination. Data on its prophylactic value can be obtained only after long observation of large numbers of vaccinated children. The vaccine of Calmette may also prove to be of considerable value. The experiments on cattle have been very successful. Plans are now being made to carry on similar experiments on anthrapoid apes.

No chemical substance has yet been found which can be said to be a specific cure of tuberculosis. Such an agent must not only be tuberculocidal, but it must be able to penetrate the avascular tubercle and the waxy capsule of the bacillus and retain its activity in the body. It must therefore possess a selective toxicity toward the tubercle bacillus. Arsenic compounds, various aniline dies, iodine compounds, heavy metals have been tried. Some promising results have been obtained with a few chemical compounds, and the future may reveal some specific drug. The chemotherapy of tuberculosis is an unlimited field for research, with the thousands of chemical agents yet to be tried.

For the present we must be satisfied with the reduction of active tuberculosis by (1) Increasing body resistance and (2) Avoiding massive, or oft-repeated infection.

Tuberculosis is largely a social and economic problem, one which

concerns the entire community, and can be solved only by united efforts. Periodic physical examinations, strict supervision of children, proper diet, sanitary homes, pasteurization of milk and tuberculin testing of cows, free dispensary and clinic treatment, sanitarium treatment of advanced cases, are some of the ways in which the disease must be reduced. The behavior of man is more important than that of the bacillus. The active case is a menace to the community and often infects all of his associates before his disease is recognized. He may expectorate as many as a billion germs in 24 hours. Unlike other infectious diseases there is often no definite incubation period, and the early symptoms are vague. Expert examination is necessary for such early diagnosis. The person with positive sputum is an advanced case, often incurable, and the chief source of spread of the disease.

Arteriosclerosis and Cardio-Vascular Disease

Arteriosclerosis, and cardio-vascular disease, although closely related, are by no means identical. We find severe chronic lesions in the arteries without the usual symptoms of cardio-vascular disease, and there are cases of cardio-vascular disease practically free from arterial lesions. In many instances both occur simultaneously in varying combination. (Ophiils).

The ultimate cause of both these conditions has been sought in certain chronic intoxications and infectious diseases, especially rheumatic infections, typhoid, diphtheria, tuberculosis and syphilis. Dr. Ophiils has recently thrown much light on this subject by a thorough clinical and anatomic study of 500 complete necropsies. He determined preceding infection by clinical history and careful examination for old inflammatory lesions in tonsils, heart valves, and other known foci of chronic infection.

In the cases in which all history or signs of previous infection were absent chronic arterial disease was almost entirely absent, but appeared early and frequently in the group with infections. Only certain infections seemed important, the chronic rheumatic (septic) conditions. Not only did the septic group include practically all cases of chronic arterial disease, but also all cases of hypertension and of nephritis in which there was sufficient history.

The arterial injuries usually begin in early life and progress slowly even after disappearance of the focal infection. Chronic pulmonary tuberculosis and syphilis were rarely related to arterio-sclerosis and associated conditions, unless a chronic rheumatic condition was also present. This statement does not apply to aortic or cerebral arterial disease. Arteriosclerosis and hypertension were found to be loosely related affairs, connected only by their common relation to certain infections. At times there may be severe functional derangement of the cardiovascular system, at other times marked anatomic lesions; or both may co-exist.

Different groups of organs may be involved: (1) Cerebral vessels, with softening of brain and hemorrhage in severe cases. (2) Coronary arteries and myocradium, with cardiac disturbances. (3) Renal lesions, the only connection between

arteriosclerosis and chronic nephritis being the common etiology in chronic septic (rheumatic) processes. Both are the result of the action of toxic bacterial substances which may at times attack the arteries, at other times the kidneys, or both. The arterial disease is not the cause of the nephritis nor the nephritis of the arterial disease. We find then a series of cases, first serious arterial involvement and little renal disease, then intermediate cases with marked involvement of arteries and kidneys, and those with severe nephritis and little arterial disease.

If these observations of Ophiils be correct do we not have further evidence of the dangers from focal infections of teeth, tonsils, adenoids, middle ear, appendix, etc., so well emphasized by Billings and his colleagues several years ago. Are not most of our cardo-vascular-renal diseases systemic manifestations of a pre-existing focus of streptococcus or other infection, which develops in early life and should be found and removed in childhood if possible? Perhaps a hereditary weakness of the cardio-vascular-renal system makes some individuals more susceptible than others to the streptococcus, or some toxic substance, as yet undiscovered, which is the cause of nephritis, and cardio-vascular disease.

Nephritis

Time will not permit me to discuss at length the various views regarding the etiology of the nephritides. I wish only to call attention to the rapidly developing view of the infectious nature of most of these types of degenerative, inflammatory, and arteriosclerotic renal disease. Careful studies of large groups of human cases indicate the importance of focal infection, usually streptococcus, as the cause of the disease. In childhood nephritis usually follows scarlet fever, tonsillitis, erysipelas, endocarditis, rheumatic fever, or chorea, in all of which the streptococcus undoubtedly plays the most important part. These are not the only causes, however. The nephritis may present itself months or years after a focal infection, when the focus may no longer be present, and when if present its removal may be of limited value. We have already called attention to the probable independence of the cardio-vascular lesions except for their common etiology.

The removal of recognized foci of infection as early as possible, prompt and efficient treatment of all acute infectious fevers (especially those accompanied by streptococcus infection), dietary restrictions to decrease the amount of renal work and afford rest and opportunity for repair, will do much to prevent renal disease. The preventive treatment of chronic nephritis is at present undeveloped because of our lack of knowledge of the etiology and the factors influencing the progressive development of renal lesions. Here also removal of foci of infection during early life may prove to be the most effective preventive measure. After the foci have existed for some time even removal may fail to stay the progress of the disease.

Pneumonia

Pneumonia kills about 100,000 people annually in the United States. In the four months of the influenza epidemic (September to

December, 1918) 500,000 people died in this country from pneumonia and influenza. The disesae is usually caused by the pneumo-coccus, types 1, 2, 3, or 4. These can be differentiated by agglutination. This differentiation of types by obtaining the organism from the sputum is now of great importance in the epidemiology as well as treatment, and possibly in prevention.

For type 1 pneumonia we have a specific immune serum which, if administered in proper dosage early in the disease, will cure most cases. Unfortunately we have no effective serum for the other types. With the exception of the use of type 1 serum the treatment is still largely symptomatic. Foreign protein therapy may be of value in certain cases but must be used with caution.

In pneumonia prevention the mixed pneumococcus vaccine has already been shown to be of decided value. The work of Lister in South Africa, and of several American physicians in this country, has demonstrated its value in prevention in a certain percent of those vaccinated. The value of influenza vaccines was no doubt due to their pneumococcus content.

The work of Blake and Cecil on experimental production of pneumonia in monkeys by intra-tracheal injection of organisms has greatly increased our knowledge of the pathology and modes of infection in this disease. The necessity of isolation of all cases and identification of carriers in prevention is of course well recognized.

Diabetes

Let us discuss briefly what can be done to prevent this disease of metabolism. It is estimated that there are 500,000 diabetics in the United States. Joslin has recently called attention to the relation of obesity to diabetes and found from his study of 1,000 diabetics that diabetes is largely the penalty of obesity. The overweight person is at least twice, and at some ages 40 times as liable to the disease. Maintenance of average weight will prevent more than half of all the cases of diabetes in this country. Education by the medical profession along this line should be carried on vigorously. Cases that exist should be diagnosed as early as possible. This can be done by routine urinalysis. Early dietetic treatment is necessary to reduce the mortality from this disease and its sequelae.

We shall not be able to consider at this time the other metabolic diseases, or the dietary deficiency diseases, such as those due to deficiency of vitamines, etc., nor the venereal diseases which cause much suffering and misery and more deaths than we realize.

Summary and Conclusions

We have seen that whereas the infectious diseases transmitted by insects, the water-borne diseases, and certain diseases for which we possess methods of specific immunization, have been conquered, we are on the other hand still unable to control the high mortality from degenerative diseases of the heart, blood vessels and kidney; cancer; pneumonia, and other acute respiratory infections; and tuberculosis.

In the cardiac-vascular, and renal diseases chronic septic (rheumatic) processes seem to play a most important part. They can no doubt be greatly reduced by early removal of focal infections.

In cancer, the cause of which is still unknown, we must depend upon education of the public, removal of pre-cancerous conditions, and surgical treatment, and the use of radium in selected cases.

In pneumonia and other acute respiratory infections control of the individual patient, and search for carriers with proper isolation and treatment offer us at best little hope in reducing the high mortality from these diseases. Perhaps vaccination will be the solution of the problem, as favorable results have already been obtained in pneumonia.

In tuberculosis, protection against massive or oft-repeated infection, especially during infancy and childhood is most important. The environment of children must be made safe from tuberculosis infection. Mild infection in early life seems to confer a distinct immunity to subsequent disease. But inactive infection may become active disease unless a high body resistance is maintained at all times. The ubiquity of tuberculosis infection, with only one percent of active cases in the population, indicates a high resistance to ordinary infection. Perhaps a vaccination will be discovered which will increase this immunity. The work of Shiga and Calmette is very promising along this line. A chemical substance which will cure the disease may some day be found.

Lastly better medical service rendered to the public, through the establishment of fully equipped health centers in every community, and available to the family physician for the diagnosis and treatment of disease and periodic physical examinations; the organization of group medical clinics in larger centers of population for more expert diagnosis and treatment; further development of federal and state forces in disease prevention; the promotion of scientific research and investigation; will do much toward solving these problems in the future.

Modern medicnie is becoming more and more a social service concerned with the prevention of disease, prolongation and betterment of life, improvement of physical health and efficiency through organized community efforts. The physician must uphold his reputation as the leader in this work. He can do this only by constantly acquiring knowledge. He must have the spirit of scientific investigation.

Let us adopt as our motto "Every ill that can be relieved shall be removed."

The wisdom of Harvey Leuwenhock, Jenner, Pasteur, Koch, Reed, Ross, Ehrlich, Behring, Wright, Roentgen, and many others, has secured for us a greater measure of health and longer term of life. Let us do as well for the next generation.

Let us live for the present and the future.

"Not myself, but the truth that in life I have spoken,
Not myself, but the seed that in life I have sown,
Shall pass into ages—all about me forgotten
Save the truth I have spoken, the things I have done."

Secretary's Note

Discussions. Dr. Jepson: A splendid paper so concise, well written that I will not be able to digest it till printed. The death rate of babies and mothers has not diminished. We must educate the laity

about cancer. Dr. Hall: We are on a dead level in tuberculosis death rate. We are getting nowhere. It is up to us to do something. Dr. Henry discussed our legislative needs and said we should demand legislation. Dr. Wise recited some "Spittoon Poetry." Dr. Barksdale discussed the sale of Red Cross stamps.

STATE PROBLEMS

By DR. F. F. FARNSWORTH

Read before the Barbour-Randolph-Tucker County Medical Society, April 6th, 1921.

The task of discussing State problems in a paper as short as this one must needs be, in a meeting of this kind, is about as impossible as that of carrying a state's resources in a dinner bucket. In each case a few samples only may be carried and displayed. It is equally true that as seasons and years come and go, new problems confront us and old ones appear in different guise.

The problem of building and maintaining state roads, the proper conservation of our natural resources, and the problems of determination of, and placing into operation of a fair and equitable system of taxation, are problems of great importance to our commonwealth, and must for years to come, tax the ingenuity of our state government.

The problem of rebuilding and maintaining our state institutions, and supporting scientific means for soil conservation, are obligations placed upon us by future generations. A sensible and efficient system of public schools is a necessity that none will deny, and one which all will support with little or no attempt at shirking their duty.

The World War bequeathed to us a new set of standards in regard to industrial matters. Today our state is face to face with the problem of standard wages equally distributed, of hours of work properly limited, of accidents more adequately guarded against; and justice done to wives and children of injured and disabled employees.

Our state government is therefore confronted with the problem of protecting society as well as the individual.

Society is not a machine composed of properly adjusted mechanical parts; it is a thing of life, composed of living members, and the most vital organism in the superstructure which has been called "State." It is therefore apparent that to insure more efficient service to the state, is is necessary to control, and if possible, to improve social conditions.

If a lower social standard is permitted, it at once means an equally lowered standard both mentally and physically, and this we cannot accept. We have no choice in this moral and sociological problem. Our duty is plain. It is one which cannot be ignored, and is thrust upon us partly as a compensation for the tragedy of war; but more especially as an obligation in preserving the manhood and womanhood of today, and insuring a cleaner, stronger race for the future.

To me, it seems that the greatest thing in the world is human life, and that the most wonderful work is that of the preservation of human life, and the conservation of human health. If our greatness

consisted of our natural resources alone, we might consider the fact that these things have always been here. Certainly they were here at the time of the Norman Conquest of England, the "War of the Roses," and the "Thirty Years War." When Napoleon was conquering the world, and English freedom and democracy were in peril, we had the same broad forests, the same hidden streams of oil, and the same mountains of coal and iron that we possess today. We did not then go to the aid of a threatened democracy; although our help would have been just as welcome. The missing link, the necessary factor, the "Man Power," to grasp, develop and prepare these things for practical use, did not exist. And in the Great World War, had not America had the human life, properly developed and conserved, not a single ship, shell, or sandwich, would have been her contribution toward the great victory.

When we finally decided to throw our power on the side of the Allies, and add our men to our resources, we received a severe blow to our national pride. Under the acid test of physical fitness, we found that a very large number of what we had called "The flower of our manhood," turned out to be a combination of tubercular and humpbacked dyspeptics, covered with venereal sores.

It was then that the government began to understand that no country is stronger than her men, that no actually available power exists, except man power; and when a large percent of the man power of any country becomes disabled from any cause, but more especially from disease, it is time to sit up and look at ourselves.

I believe therefore that I am justified in saying, that while we have many state problems which are of great importance, and must command the attention of our wisest statesmen, the greatest problem of all, is that of the preservation of human life, and the raising of the standard of physical and mental efficiency to the highest possible plane.

It is not a matter of more people, but of better people. Neither is it so much a question of saving worthless lives, as that of making lives worth saving.

The problem of the physician is one of preventive as well as remedial medicine. The problem of the health officer, is that of sanitation, education directed toward preventive measures, and law enforcement.

The problem for the state is to finance, and furnish the men and means whereby this fight may be carried on.

The birth of preventive medicine has been described by Stokes in language very much like the following:

The struggle of man against his unseen and silent enemies, the lower or bacterial forms of life, once one becomes alive to it, has an irresistible fascination. More dramatic than any novel, more sombre and terrifying than any battle in the dark, would be the intimate picture of the battle of our bodies against the hosts of disease. If we could see with the eye of the microscope, and feel and hear with the delicacy of chemical and physical interactions between atoms, the heat and

intensity of the savage relentlessness of that battle, would blot out all perception of anything but itself.

Just as there are sounds we cannot hear, and light we cannot see, so there is a world of small things, living in and around us, which sways our destiny and carries astray the best laid schemes of our wills and personalities. The gradual development of an awareness, the realization of the power of this world of minute things, has been the index of progress in the bodily well-being of the human race through the centuries, marking the rebirth of medicine after the sleep of the Dark Ages.

In these days of sanitary measures and successful public health activity, it is becoming more and more difficult for us to realize the terrors of the Black Plagues, the devastation, greater and more frightful than war, which centuries ago swept over Europe and Asia time and again, scarcely leaving enough of the living to bury the dead.

Cholera, smallpox and bubonic plague, with terrifying suddenness fell upon a world of ignorance, and each in turn humbled humanity to the dust before its invisible enemies. Even within recent years, the germ of influenza, gaining a foothold inside our defenses, took the world by storm, and swept the entire habitable earth; affecting hundreds of thousands of human beings, and leaving a long train of debilitated and even crippling complications.

Here and there through the various silent battles between human beings and bacteria, there stand out periods of time and men, whose powers of mind and gifts of insight and observation have made them leaders in our fight against the armies of disease. But their gifts would have been wasted had they lacked the support, without which all effort is worthless, and all leadership is wasted. This support is the force of enlightened public opinion, the backing of the right-thinking every-day man. It is the co-operation of the great mass of every-day right-thinking men and women, acting on the organized knowledge of leaders, which has made possible the virtual extinction of the ancient scourges of smallpox, cholera, and bubonic plague.

Just as certain diseases such as malaria and yellow fever are gradually passing into history through human effort, and will finally disappear before the campaign of preventive medicine, so there are other diseases, some of them ancient, others of more recent recognition, which are gradually being brought into the light of public understanding. Conspicuous among them is a group of three, forming what may be called the "Great Triumvirate." In contrast to the spectacular course of other epidemics, these diseases pursue their work of destruction quietly and slowly, undermining in their long drawn course the very foundations of human life.

Tuberculosis, now the best known of the three diseases, may be named first; not because it is the oldest or most wide-spread, but because it has been longest known and most widely understood by the world at large.

Cancer, which is still of unknown origin, is the second great modern plague.

The third great plague is Syphilis,

a disease which, in these times of public enlightenment, is still more or less shrouded in obscurity, entrenched behind a barrier of silence, and armed, by our own ignorance and false shame, with a thousand times its actual power to destroy.

Against all of these three great plagues medicine has pitted its choicest personalities, its highest attainments, and the uttermost resources of human knowledge. Against all of them it has made headway. It is a peculiar fact however, that the disease against which the most tremendous advances have been made, and the most brilliant victories won, is the third great plague, Syphilis—the disease which still destroys us through our ignorance or our refusal to know the truth.

Widespread universal knowledge has crippled the power of tuberculosis. The people have been taught its cause and the possibility of a cure.

In time, Cancer will be obliterated by the same means. Make an evil a household word, and its power is gone. The same is true of a disease. When we finally arouse the people to the destructive power of syphilis, we shall in turn destroy it and because of the power now in the hands of medicine, it shall be done more quickly. These problems are grave ones nor are they all, for we still have left the control of gonorrhea, which alone infects more people at some time in their lives than any known disease, with the single exception of measles.

Any condition or disease which affects, or is liable to affect such a considerable number of our people with disastrous results, must be considered a state problem. And I declare, Gentlemen, that I believe the most important single problem before us, is that of the control of the venereal diseases, and the introduction of educational measures and sociological reforms necessary to that end.

A respectable start has already been made in West Virginia. Of its results you are fairly well informed. The Bureau of Venereal Diseases has done what it could in the way of treatment and control, but believing that all effective public health work is at least 90% educational, it has devoted its efforts largely to dragging the facts from under cover, and literally nailing them on the sign posts and bill boards of the state.

We have found by personal examination and investigation that 25% of all the insane, 30% of all criminals, and 85% of all prostitutes in West Virginia are infected with one or the other, and at times a mixture of venereal diseases. Physicians' and health officers' reports coming into the State Department of Health have shown that during many weeks and some months, the prevalence of venereal disease has been greater in West Virginia than that of all other reportable diseases combined, and we are convinced that there is a relatively much larger number of venereals of which no report is made.

During the month of January alone, there was reported to the Bureau by the physicians no less than 845 cases of venereal infections, and the records of the State Board of Control show that one out of every six cases treated in hospitals at

state expense is either syphilis or gonorrhea, or some of their complications. Under such circumstances I would consider it a waste of time in going into details in a paper intended for physicians only, who must from their own experience know most that I could tell them. But it is very much to the point to mention some of the means necessary to solve these problems and control the evil.

Aside from a sufficient appropriation to finance an adequate administrative and publicity force in the State Department of Health, and especially in the Bureau of Venereal Diseases, the following I consider of great importance.

I. Full time, well qualified County Health Officers in each county, and in each city of sufficient size. An efficient county and city health organization co-operating with a central department is the only way that work can be co-ordinated and an efficient working organization established. This will be aided greatly by the employment of county and city public health nurses,

II. Detention homes with medical and industrial advantages for infected girls under eighteen years of age, and another but similar institution for older and hardened prostitutes.

III. Adequate laws against houses of ill fame, and commercialized prostitution, with teeth that will bite male and female alike. The power of injunction and abatement must be so complete, that every jurist from the Justice of the Peace to the Supreme Judge is responsible for its enforcement.

IV. Raising the age of consent to 16 years, which is now the legal marriage age. Certificates of health before marriage and full and complete Vital Statistics are measures which will help greatly in venereal disease control, and will be a wholesome check on other diseases as well.

V. A State Venereal Disease Control law. Such a measure is now before the Legislature with good prospects of passage. This is known as Senate Bill No. 71, introduced by Mr. York of Mingo, and is a very complete bill, dealing with practically every phase of the venereal disease question as it touches the physicians, hospitals, local health officers and the communities at large. This bill gives local taxing bodies full powers to levy for funds to establish places of detention, care and treatment of all cases coming within the counties and municipalities. This bill gives two or more counties or municipalities the right to combine their funds to make provision for the care and treatment of cases otherwise not being treated. It also confers upon JUSTICES OF THE PEACE jurisdiction to try and determine offenses thereunder. This is a very important matter as it simplifies procedure in prosecutions.

These, Gentlemen, are some of the problems of our state which the Medical Profession must help solve. We have the quack within our ranks, and the Medical Bolshevist without to contend with. Organized deceit in high places is walking hand in hand with the vice of our slums. The medical nihilist continues to break the laws of our land every day during the week, but boldly walks to church in broadcloth and silk on Sunday, and fer-

vently sings "Praise God from whom all blessings flow."

Still with all these responsibilities and vexing drawbacks, I believe the medical profession in West Virginia will not be found wanting in any crisis, nor will the future find its seed begging bread.

MILK AND THE PUBLIC HEALTH

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Paper read before the Annual Meeting, School of Health Officers, April 12, 1921, Charleston, W. Va.

In presenting this paper before a body of physicians interested in the public health and public welfare, due cognizance is taken of the fact that there is probably no subject which occupies a more prominent position in public health, dietetic and agricultural literature than milk. As the subject is of such vital interest and means so much to the welfare of the human family, from the cradle to the grave, and is at the same time a public health question which in the main receives so little attention in the strictly rural districts by the dairyman, the physician, and the ultimate consumer, it is a subject which the health officer should always keep alive. I therefore feel that it is entirely proper to emphasize a few points regarding milk and the public health at this meeting.

The Milk Question

There are four general important reasons for the existence of a "Milk Question:"

1. Milk is necessary. There is no food which can just exactly take the place of milk in infant feeding. In the earliest period of infancy, when mother's milk is not available, modifications of cow's or goat's milk, as the best substitutes, are often used with most beneficial results, as we all know. I do not believe it would be too broad a statement to say that the future of the human race depends on clean milk.

2. Milk can be dangerous. As milk is an ideal food for infants, in certain kinds of sickness, and in old age, this commodity is also, unfortunately, fruitful soil for pathogenic bacteria which can multiply in an alarming degree. For example, at a temperature of 68 degrees F., 10 bacteria at the end of 40 hours will have multiplied to 3,574,990, and, as is well known, milk is commonly used in the laboratories as culture media.

3. Milk spoils rapidly. There is no food which spoils more rapidly than milk, which in itself necessitates special care in its production, handling and delivery.

4. Finally, milk is consumed in the raw state, and the safeguards of applied heat are lost.

The late Professor Sedgwick, many years before the problem reached its present acute stage, wrote: "Milk has always been one of the most trusted of human foods. Clothed in a veil of white; associated with the innocence of infancy; or of high repute for easy digestibility; believed to represent in perfection a natural dietary, popular and cheap,—milk has always held a high place in public esteem. Of late years, however, while maintaining its reputation in respect to cheapness, food value, blandness and digestibility, it has, in the eyes of physicians and sanitarians at

least, come to be regarded, while in the uncooked condition, with general suspicion." This suspicion has developed with the increasing prominence of three branches of sciences, —namely, bacteriology, epidemiology and vital statistics.

Clean Milk Defined

According to the Department of Agriculture, clean milk is defined as follows: "Clean milk is milk with good flavor from healthy cows, that is free from dirt and contains only a small number of bacteria, none of which are harmful."

Production of Clean Milk

The production of clean milk depends primarily on the sanitary education of the dairyman himself and on his willingness to develop habits in the production of his product which will insure a low bacterial content.

Clean Cows

A bacterial count commensurate with safety depends first on mechanically and bacterially clean cows. Mechanical washing of the bellies, flanks and udders is simple and easily accomplished. Yet, how seldom it is done, merely through lack of forming the habit. It is obvious that cows are not especially particular of their surroundings, and it is possible for them to lie in places of filth, which, in small or large quantities, may seep into the pail at milking time. I have personally seen such occurrences, as I am sure some of you have, if you have been thrown in contact with many rural dairy farms. The Department of Agriculture reports an experiment with open, sterilized milk pails, in which samples of fresh milk from dirty cows had an average bacterial count of 55,208 per cc., while samples of fresh milk from clean cows, with udders and teats washed, had an average of 4947 per cc.

When we speak of bacterially clean cows, we instictively think of bovine tuberculosis. Most of the tuberculosis of children is in the bones, joints and intestinal tract, leading to the belief that milk may be one of the chief causative agents, with the theory also before us that generalized tuberculosis in adults is an activity from an early infection in childhood from the metabolism of milk from tuberculous cows. This whole question of bovine and human tuberculosis has been very tersely summarized by Dr. H. S. Hatch, Superintendent of the Sunnyside Sanatorium at Indianapolis, in which expressions, it seems to me, there is room for thought:

"The only practical way to arrive at any conclusion on this subject is by study of the type of bacillus present in cases of tuberculosis in the human. This study has been made by various observers, who find that approximately one-third of the cases of tuberculosis in children are due to the bovine type of bacillus. Since about one-seventh of all deaths from tuberculosis at all ages, are in children under five years of age, and since practically all the tuberculosis of bovine origin is in children under five, we may say that approximately 4.7% of all deaths at all ages are due to bovine tuberculosis. It is very often impossible to differentiate the bovine from the human type of bacillus; hence these figures are merely an approximation. The bovine type of bacillus is very rarely found in adults. Since we now belive that practically all

adult tuberculosis is due to an infection acquired in childhood, and since one-third of the childhood infections are due to the bovine bacillus, it seems reasonable to assume that perhaps the bovine bacillus by long residence in the human host undergoes a transmutation of type to the human form. If this be so, then tuberculosis of the bovine type is much more prevalent than we have thought."

According to the Department of Agriculture standards, cows should be tested for tuberculosis at least once a year, and, if reactors are found, tests should be made twice a year in a herd. All reactors should be removed from the herd and the stables and premises disinfected. All new cows purchased should be tuberculin tested before being associated with the herd.

Clean Milkers

Of equal importance with clean milk are clean milkers; clean from a standpoint of visible dirt and clean from a standpoint of milk-borne diseases. Here again the old, old question of the importance of health education is paramount, and the forming of habits which will at least insure clean wearing apparel and clean hands before milking. Only recently, I visited a Government-operated dairy farm in which provision was made for clean gowns for milkers and facilities for the thorough cleansing of the hands of each milker. Mechanical cleansing of cows was also religiously carried out, with the result that this dairy farm was producing milk with a bacterial count of 4000 to 6000 per cc. without pasteurization. Unfortunately, the custom is all too prevalent at many dairy farms of the milker's rinsing his hands in the first milk drawn, wiping them off on a dirty part of his overalls and then commencing the milking process,—unthinkingly, and in all probability without the slightest conception of what his practice might mean to the community served. How much responsibility should rest on the health officer of at least giving the dairyman and his co-workers the benefit of the knowledge of the harm that dirty milk can do in causing milk-borne diseases?

The diseases most commonly recognized as being milk-borne are typhoid fever, scarlet fever, diphtheria, septic sore throat, infantile diarrhea, tuberculosis, foot and mouth disease and milk sickness, the last being rather a rare disease found in the valley of the Pico River in New Mexico, and which caused the death of Nancy Hanks, the mother of Lincoln, in 1818. Frequent examination of milkers for the determination of typhoid carriers, and immunization by innoculation should be, whenever possible, adhered to and insisted upon.

As an example of what might happen from infected milkers, I remember very distinctly, in the summer of 1918, while engaged in public health work at one of the large mobilization camps in the West, of finding a milkman with his throat and tonsils covered with diphtheritic membrane, with a temperature of 103, and with all the symptoms of diphtheria, which were later confirmed by a bacteriologist, milking the cows and from time to time coughing over the bucket of milk which was intended for the camp. The only thing that appealed to him, I suppose naturally, when his

whole output was condemned, and he himself was placed in quarantine, was the financial loss involved, and not the terrible potential danger which was prevented by this inspection. The determination by the health officer of the physical condition of the milkmen on the dairy farm should be no small part of the duties of this important office. A series of 500 milk-caused epidemics tabulated by Trask of the Public Health Service, included 317 of typhoid fever, 125 of scarlet fever, 51 of diphtheria, and 7 of epidemic sore throat.

Clean Utensils

The third important link in the chain which is so necessary in milk production is clean utensils, in the shape of milk pails, cans and bottles.

The Small-Top Pail. I wish that the small-top milk pail were more generally used at the dairy farm and that dairymen would realize that milking into a small-top pail, although perhaps awkward at first, is really just as easy as the large, open type. It stands to reason that the small-top appliance will of necessity receive less dirt and sediment than the large, open receptacle, which will take in anything from bacteria to a kitten. The Department of Agriculture has accomplished some very interesting experiments in the relative quantities of sediment in milk drawn into open-top and small-top pails. It appears from those experiments that practically twice as much dirt and filth precipitates into an open-top pail as into that of a closed nature. It has been found by the Department of Agriculture that the average number of bacteria per cc. in 30 samples drawn into a small-top pail was 29,263, while an equal number of samples drawn into an open-top pail averaged 87,380.

A very simple and efficient test to determine the amount of sediment and visible dirt in milk is to filter the contents of the bottle through a cotton filter about the size of and shape of a bottle cap. The various foreign bodies show up very distinctly on the white filter pad, and constitute a visible object lesson. In the health campaigns with which I have been connected, one of the factors in creating public sentiment for better milk was the display, in a prominent show window, of a number of these filter pads containing residues of various descriptions. These filter pads were all numbered and the dairy farms known by number to the health office. The legends over these filter pads were various, such as "Do You Know What May Be in the Milk You Feed Your Baby?", "Do You Know the Conditions Under Which the Milk Purchased by You is Produced?", and the like. In this way, public interest was aroused by visible observations of uncleanliness which it is impossible to demonstrate in speaking of bacterial uncleanliness.

The Cans. From a small-top milk pail, the commodity should be poured through a strainer into a clean can, and then rapidly cooled by packing in ice or submersing in cold water, or immediately pasteurized and cooled. Fnally, the milk should be placed in clean, sterilized bottles, securely capped and properly iced and delivered; or, when the milk is shipped in cans, as is the more common practice at the smaller dairy farms, the cans should be

properly iced. The cans should not be allowed to stand on station platforms in the hot sun waiting for the milk train, by which practice they become converted into veritable incubators thereby weakening the chain of effort from producer to consumer, no matter how strong the previous links may be.

Cans and pails should be of tin and properly washed and sterilized, proper attention being given by the dairyman to the cleansing of the upper rim of the cans and buckets, which very often escapes even vigorous cleansing, and supports a thin, hard crust of dried milk, in which numerous bacteria live and have their being, only to propagate more intensively when fresh milk is added to the utensil.

The Bottles. Milk bottles, when used on the rural farms, should be given the same scrupulous attention as is given the tin-ware. Custom rules that the transparent glass bottle is the common container for milk. Custom seems also to rule that it is the most misused container among the perishable food containers which are used for marketing purposes. Economy rules that the cost of a glass bottle requires it to be used over and over in order that its value may be realized. It goes without saying that bottles should be thoroughly washed in soap and water and rinsed in clear water, and if possible sterilized with steam before being filled. The proper use of caps for bottles should be emphasized. I have personally seen caps labelled "Pasteurized" inserted on bottles containing unpasteurized milk, merely because there was at that time a scarcity of caps. In this case, the only thought of the dairyman was to meet the emergency, in order that the milk might be delivered, and overlooking the fact that he was guilty of gross misbranding. These are points which the health officer meets from time to time in his official relations with the dairyman.

Sterilization. In a discussion of the sterilization of utensils, it is realized that this is a process which it is difficult to accomplish due perhaps to lack of steam on the farm or to fear in the dairyman's mind that such a procedure entils a large amount of expensive apparatus. Bottles, however, can be boiled in a wash-boiler on the kitchen stove, and various models of simple oil-burning or kerosene-burning sterilizers have been evolved for the rural dairyman, complete descriptions of which can be obtained from the Bureau of Animal Industry, Department of Agriculture.

Pasteurization

Pasteurization is unquestionably one of the greatest safeguards in clean milk production. Even when milk is produced under the most unsanitary and filthy conditions, pasteurization (subjecting the milk to applied heat for one half hour at 145 degrees F.) renders practically inert the pathogenic organisms involved, and is of the greatest importance at creameries where the milk from several daries is mixed. In this connection, it has been estimated that about 99% of the bacteria in milk are destroyed by pasteurization, and the survival of the remaining 1% depends entirely upon the temperature to which the milk is heated.

Pasteurization, when first practiced by milk dealers in this coun-

try, was carried on secretly, and, except as a means of preserving the milk, was regarded by them as a process of no value, but as the practice became more general the subject of pasteurization was studied, and its value as a means of destroying disease-producing bacteria was recognized. It has been estimated by MacNutt, of the Massachusetts Institute of Technology that, roughly speaking, pasteurized milk contains from 1000 to 50,000 bacteria per cc. in contrast to raw milk, which contains an average from 1,200,000 to 20,000,000 bacteria per cc.

Information collected through the United States and the Dominion of Canada shows that there are approximately 4,200 pasteurization plants in operation in these countries at the present time and that only a limited number of these are controlled from a public health point of view, and those that are controlled from a public health point of view are in the majority of cities where adequate health organizations are administering health supervision.

It is very difficult to impress upon the rural dairyman the necessity of farm pasteurization, although it is probably one of the simplest methods of health insurance from the standpoint of the ultimate consumer and is likewise an excellent business investment for the dairyman in preserving his product from spoiling too rapidly. Pasteurization on the farm may be wisely effected when the farmer has a local milk route or when farm butter is manufactured. There are a number of pasteurizers on the market, and advice as to selection may be obtained from the Bureau of Animal Industry.

Rapid Cooling

Hand in hand with pasteurization is rapid cooling or chilling of the milk, which should be done under any condition, whether pasteurizers are in use or not. No matter what conditions prevail at the rural farm, cooling, in one way or another, should be easily accomplished, from the method of placing the cans in cold water to the purchase of special apparatus for aeration and cooling. Cooling is another most important safeguard against milk souring. Experiments conducted by the Department of Agriculture have shown that milk at 100 degrees F. will sour in from 12 to 36 hours, depending on the initial bacterial content; at 55 degrees F., from 20 to 180 hours; at 40 degrees F., from 180 to 396 hours. Cooling should be begun immediately after the milk is obtained from the cow, if best results are to be obtained, the ideal way being for the cans to be placed in a milk house and there cooled with ice. There are various forms on the market for cooling milk, including the cone milk cooler, and the spiral milk cooler, where the milk is allowed to run over metal coils in which cold water circulates.

Delivery

The next important step in the handling of the milk is its shipment from the farm to the point of railroad delivery. The usual custom in rural districts is to put the cans in the milk wagon, drive some distance to the railroad station, and there leave the cans exposed to the rays of the sun until the train arrives, converting, as has been said previously, the milk cans into veritable

incubators. It is possible to keep the milk cool in transit either by the purchase by insulated cans, which are in reality large thermos bottles, by wrapping ordinary cans in felt jackets, or placing them in sacks filled with ice, which was the custom in the western community familiar to me. The Department of Agriculture accomplished some very interesting experiments in which four ten-gallon cans of milk, cooled to 44 degrees F. were hauled a distance of 14 miles to the railroad station. The cans were then shipped by rail in an ordinary baggage car for more than a thousand miles at an average temperature of 80 degrees F. In the unprotected cans, the milk reached a temperature of 60 degrees when they had traveled about ten miles from the farm before reaching the railroad; whereas, milk in the chilled and protected cans did not reach a temperature of 60 degrees F. until after they had traveled nearly 400 miles on the railroad.

Clean Surroundings

We now arrive at a most vital point—clean surroundings on the dairy farm, or what might be properly termed "accessories" in clean milk production, which would not generally appear to play a very important part in the life history of milk. On an ideal dairy farm, we would expect to find a clean, airy and comfortable stable for the cows; a little distance away, the screened milking barn with metal stanchions, sanitary gutters, concrete floors and overhead tramways for stable cleaning; and the screened milkhouse. At last, but probably most important of all, we would expect to find a safe and sane water supply, properly protected, and a safe and sane method of excreta disposal. Milk-borne epidemics of typhoid fever are possible when a water supply contaminated by drainage from the all too common open in the back toilet is used to wash cans, pails, and bottles, and also, by this gross infraction of sanitary health laws, typhoid fever may develop among the dairy farm personnel and a vicious circle formed by the further pollution of the water supply or by the development of carriers among the milkers. Health officers should vigorously strive for safe excreta disposal on dairy farms by the use of concrete vaults, septic tanks, or the box and can type. This should be one of the requirements by legislation for the marketing of milk.

Fly breeding is another most important factor in the cause of intestinal filth-borne diseases as carried by milk. We have all seen the typhoid fly, which has been ill-termed the "Domestic House Fly," swarming over milk bottles, pails and cans, with numbers from time to time falling into the milk and only being eliminated in the straing process, and by the time they are strained from the commodity, which will be used for the noursihment of infants, the house fly, the most filthy of all insects, has been thoroughly and completely washed in this vital food. Ninety-nine per cent of flies breed in stable manure, and so naturally find on the average dairy farm the most favorable site for propagation. The frequent cleaning of stables, and the scattering of stable manure as fertilizer, together with a prompt disposal, such as burying or burning, of garbage, will

accomplish much in eliminating fly breeding.

And so, we find that on dairy farms, existing conditions and facilities are so closely correlated and interwoven, one with the other, in their general relation to the dairy industry, that we must accomplish as far as possible sanitary reforms in their entirety, and not stress one particular point and overlook others, with the possibility of breaking the chain by negligence in what seem to be minor matters.

Adulteration of Milk

The preservation of milk by chemicals is a question upon which so much literature has been written, and upon which so much argument is advanced as to the efficacy of such procedure, that I will give it passing mention. It is probably more universally in vogue in rural dairy farms than the average health officer realizes, as it seems to be the easiest way to insure against too rapid spoiling, and in all too many cases, it seems to be all too easy for the dairyman to "get by" with this procedure. The preservatives which are most commonly added to milk are: formaldehyde, benzoic acid, boric acid, salicylic acid, potassium fluoride, sodium carbonate and hydrogen peroxide. As regards efficacy, there is no doubt that by the use of chemical preservatives the development of bacteria can be retarded or even absolutely inhibited. It is merely a question of dosage. I remember very distinctly one dairyman in the south who was producing milk under the most frightful, unsanitary conditions, and yet in the laboratory his product was sterile. This was accomplished by the use of hydrogen peroxide.

I think it is safe to say that the use of preservatives in milk is placing the cart before the horse and giving the dairyman and the public a false sense of security by the low bacterial count. In the words of Rosenau, "If the milk question had been of importance in the days of the Decalogue, we perhaps should have had an Eleventh Commandment which would have been simply 'Thou shalt not adulterate milk.'" As stated by William G. Savage in his book on "Milk and the Public Health" — "Whatever may be advanced in favor of the addition of preservatives to other foods, when added in definite and declared amounts, the consensus of opinion is overwhelmingly against their addition to milk. It is easy to understand why milk vendors favor their employment. Their use converts a perishable article into a comparatively non-perishable one, allows surplus milk to be kept over until the next day without loss and be sold as fresh milk, and enables the farmer and purveyor to neglect the laws of cleanliness in production, they are a further source of economy in that they save the cost of cooling the milk. Preservatives are the friend of the filthy dairyman."

Other forms of adulteration practiced are the addition of thickening agencies, such as chalk and glycerine and coloring matters to make the milk look richer. Vegetable dies have been used for this purpose, as have also orange and yellow and coal-tar. The custom of watering milk is practiced from time to time, but if the water is pure, it can be regarded as a fraud more than a health problem.

Legislation

Hand in hand with practical education in the accomplishment of sanitary reforms in milk production is adequate milk legislation to cover fraud, disease and cleanliness in production. Our statute books in county, state and city are filled with milk ordinances,—some good, some bad, some indifferent,—and yet, in the main, these ordinances are not enforced by the executive powers. One of the best milk ordinances which it was ever my pleasure to read was on the statute books of an enterprising western city,—but that was all,—and milk continued to flow into that particular city adulterated chemically and bacterially to the extreme.

The diplomatic health officer will expend every effort to obtain the heartiest cooperation of the court, and it would not do any harm to spend a little time in the education along these lines among the county judges and the judiciary powers in the municipal courts as to the importance of properly enforcing the law. It has been my experience in dealing with this question that a few stiff fines in court as a reminder that such laws exist go a long way in insuring sanitary production on the dairy farm. For, aside from the financial loss of the fine which accrues to the dairyman, there is a certain amount of business embarrassment due to the unfavorable publicity which naturally follows, and as such sentences are a rarity in rural districts, it is safe to presume that much publicity will follow.

The health officer should play an important part in the framing of milk laws, care being taken to frame a good law, and a properly worded one, for it is difficult enough to provide for all legal possibilities and at the same time state in plain language what is intended. When such laws are framed by amateurs, the results are often grotesque combinations.

In a strict sense, it is impossible to frame a milk ordinance with its definitions, standards, and requirements, which will be suitable for all communities. On the other hand, a general skeleton form may be made that can be used as a framework upon which to build a finished, practical, operative law, and due consideration should be given to the local dairy and milk conditions, as well as the purposes and intent of such an ordinance. It must be realized that laws should not be enacted which would have the effect of curtailing the milk production, our best food when properly produced, and in this connection, I might state that the Public Health Service will be glad, at any time, to furnish information as to milk ordinances. In my opinion in the drafting of such legislation, I have from time to time obtained a collection of ordinances from various cities and smaller towns and from them have picked out the best points and used them in framing logical and workable ordinances. In the enforcement of milk legislation, I have personally attempted to impress upon the dairyman that such legislation is not for the purpose of imposing hardships on him, but that it is for the ultimate purpose of saving lives and insuring to him a better business. For, when an epidemic occurs on a milk route, that dairyman, for the time at least,

is financially ruined.

Milk Inspection

Milk ordinances, no matter how carefully and logically drawn, are of no avail without dairy inspection. The inspectors should be trained as much as possible not only in the fundamentals of clean milk production, but also in dairy psychology, and should be under the administrative control of the health officer. Inspections so made are not for the purpose of "prying around," "spying on a man's business," or for chronic fault finding, but to assist, in the fullest meaning of the word, the dairyman in the accomplishment of his business. Constructive criticism, with remedial suggestions, are helpful in any business, and when the dairyman is properly approached, he will not resent what has so often been termed "unwarranted interference" by the local health officer.

Knowing what to look for on dairy farms is an important requisite in a dairy inspector. I have personally known inspectors who have rendered full and complete reports with reference to collections rubbish on dairy farms, tin cans, bits of paper and the like, or who have exhaustively discussed general conditions about the premises of minor importance, overlooking mechanical cleanliness, nature of utensils used, and the process to which the milk is subjected when obtained from the cow. So, education in inspection plays no small part in the duties of the health officer.

Sanitary Education in the Schoolroom

The bringing of these vital points to the attention of the children in the schools is well worth while as a general means to an end, so that the dairymen and milk producers and milk-product manufacturers of the future will have inculcated in their minds sanitary laws which shall be inviolable as the laws of right and wrong.

Of course, all these things can best be accomplished where there is a full-time health officer.

In concluding this very general discussion of a problem upon which books and pamphlets galore have been written, the writer realizes that only superficial consideration has been given to the problem as a whole, as there are so many links in the chain from the cow to the baby, and every link in reality a problem in itself. But it is a "Consumation Devoutly to be Wished" that health officers, whether part-time or full-time, will be ever thinking of these things and playing their part in the field of preventive medicine, in the expenditure of every effort towards SAFE MILK, which the public has a right to expect.

References

Rosenau, M. J., "The Milk Question," Huoghton and Miflin, 1912.

MacNutt, J. Scott, "The Modern Milk Problem," MacMillan, 1917.

Strauss, L. G., "Disease in Milk."

Savage, W. G., "Milk and the Public Health," MacMillan, 1912.

Kelly, Ernest, "Production of "Clean Milk," F. B. No. 604, U. S. Department of Agriculture, 1919.

Gamble, J. A., "Cooling Milk and Cream on the Farm," Farmers Bulletin No. 976, U. S. Department of Agriculture, 1918.

Ayers, S. Henry, "The Pasteurization of Milk," Circular 184, U. S. Department of Agriculture, 1912.

Smith Russell, "Bacterial Control of Milk Plants, 1920.

Gamble, J. A., "Cooling Milk and Storing and Shipping It at Low Temperatures," Bulletin No. 744, U. S. Department of Agriculture, 1919.

Ayers, S. Henry, "The Present Status of the Pasteurization of Milk," Bulletin No. 744, U. S. Department of Agriculture, 1919.

Bulletin No. 585, U. S. Department of Agriculture, "A Guide for Formulating a Milk Ordinance," 1917.

Kelly Ernest, and Gamble, James A., "Straining Milk," F. B. No. 1019, U. S. Department of Agriculture, 1919.

Ayers, S. Henry, and Taylor, George B., "A Simple Steam Sterilizer for Farm Dairy Utensils," F. B. No. 748, U. S. Department of Agriculture, 1917.

"Pasteurization of Milk," Report of Committee on Milk Supply of Sanitary Engineering Section, American Public Health Association, 1920.

PAPER READ BEFORE THE EASTERN PANHANDLE MEDICAL SOCIETY

By G. W. SMILEY, Bunker Hill, W. Va.

It is said that God made the country, and man made the town. So it has ever been since Cain began to build his hamlet; towns are not self-supporting, they depend on the country for recreation. Today for a few hours let us leave the city scenes, and go out into the open where we can find nature in all of its grandeur; where we can breathe the pure air minus the swarming microbes of the city streets, and drink in the crystal waters as they flow from the mountain side. Let us go ten or fifteen miles out from the city, to a village known as Gerardstown. While there we will call up the scenes as they may have occurred fifty years or more of the days gone by. Fifty years is one half a century,—about two generations have passed away during that period of time. Contrast the fifty years ago with today and recognize the change; it is for the better or the worse—Which? Do not be deceived. From some cause not known the little town referred to had some special attractions for doctors, as several persons of that profession had at various times located in and about this village. They have all gone over the river, and are now enjoying their reward for the good done while here below. They lived a life of usefulness that the world might be better for their having lived in it. Who can do more? There was no rivalry among them, but through their fraternal fellowship they organized what is supposed to be, as far as we know, the first Medical Society that ever existed in Beckley County. They published their schedule of fees for day visits, night visits, obstetrical and surgical practice, also some miscellaneous work. Their fees ranged from 50c to $50.00, much of which was never paid or collected, some came in as exchange, so you see that the actual money received would not more than pay for the cigarettes for the boys now-a-days. In those days Doctors did not smoke cigarettes. A question might with propriety be asked, Does it add to the dignity of any professional man to smoke cigarettes?

Let us look at the daily life of the doctors who lived a few generations

in the past. Then some of them travelled afoot to see their patients, and the Doctor who owned a horse, saddle and bridle and a few pills with some favorite herb, was well equipped for every call, day or night. Often the doctor was called early in the morning after being in the saddle days and nights without rest, to see some of his patients who were living at various distances out in the country, sometimes fording swollen streams at the risk of his life, to find, in a one-room cabin located under the side of a mountain, and far away off in the mountain's fastness, a serious case with no telephone, no help or assistance save that of a good old grandmother, whose poultices and plasters often made the patient comfortable. Grandmothers are scarce during these modern days; they are all ladies. In those days of long ago it was not man's inhumanity to man; it was humanity to man; the poor were not refused relief because of the lack of cash.

Now we will look at the modern doctor. He lives and enjoys all of the comforts of the day. When called he presses a button, a car comes to his door, he enters, and regardless of the storm he is comfortable. He is soon away into the country, finds a patient in an upper chamber where there is comfort and plenty. He notes the circulation, respiration and temperature,—making a hasty diagnosis, he writes a prescription, and giving some suggestions he retires with a good fee in his pocket.

Do you know that the insatiable tooth of time is ever gnawing at the vitals of the nation, no rest—no not until time shall be no more. Why all this change? Is it recognized as a normal change? Where are all the giant men and women who lived a century ago? In their stead we find dwarfs physically and mentally defective from birth, and the number is increasing. Why this sad condition—is there no remedy? Let us see—there are tuberculosis clinics, syphilitic clinics and many other kinds of clinics — all very good. Why not have a clinic in which men can be placed above the beasts of the field. Call it a human or national clinic. Why not weed out the scrubs of mankind as is being done with the horse, the cow, the hog, the dog, all to get a higher strain of the kind? Who is to do this work? The Doctor? He can assist. Church laws are only palliative,—legal laws only can reach the trouble. The last legislature made special provisions for educating the children of the State to make the boys good citizens,—it requires more than education to become a good citizen. Any scrap of humanity can become a citizen today regardless of his mental, moral or physical condition. Franchise may be too cheap,—was there anything done in the legislature to make citizens. No, nothing. Do you realize that we are now living in an age of sport and restlessness, and that more than two thirds of the people in some respects are living on the wrong side of life, and the number is increasing? It is sad but it is true.

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All original articles for this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

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TREND OF PRACTICE OF MODERN MEDICINE

Modern clinical medicine, says Frank Billings, Chicago (Journal A. M. A., May 20, 1922), embraces such a vast field of knowledge that it is beyond the power of any individual to acquire the necessary learning, experience and technical skill to practice efficiently in the whole field of medicine. A recognition of this has led to the necessary specialization in medicine, with the evolution of the internist and of other specialists in the narrower fields of medicine and surgery. The wonderfully beneficial results of the application of asepsis have made the modern general surgeon a specialist. The evolution of medicine and the promotion of specialism have resulted in the invention of instruments of precision and the elaboration of laboratory methods of physical and functional diagnosis which require special technical skill and experience in their application. In consequence, diagnosis, both physical and functional, has become more precise and at the same time

complex. Specialization in medicine developed rapidly before the war, and it may be said that the result was generally beneficial to clinical medicine and surgery, and to the public; but an early tendency to overspecialization became evident. In recent years, overspecialization in medicine has led to the organization of private practitioners into groups, with representatives in the membership of general or internal medicine and surgery and of most or all of the specialties of medicine and surgery, including laboratory specialists, for the purpose of affording greater efficiency in practice. Since the end of the war, the movement toward group practice has expanded rapidly. The organization of diagnostic and treatment pay group clinics is a more recent development. The suggested advantages of group practice include more efficient diagnostic and therapeutic service; financial economy to the patient, because the one fee charged for the total service rendered is adjusted to meet, without embarrassment, the financial resources of the patient; and professional cooperation in substitution of the prevailing individualism in medical practice. The value of the application of group practice is limited. Based on long experience in consultation and in general hospital and private practice, it is the author's opinion that a correct analomic and functional diagnosis can be made in from 80 to 85 per cent. of all the patients of an average community by a qualified, industrious, painstaking general practitioner by the sole application of the trained mind, the special senses, the hand and an always available simple laboratory equipment. Likewise, approximately 80 per cent. of the patients will receive efficient management and treatment as ambulatory or house patients. The truth is, the splendid knowledge which modern medicine has made available in the diagnosis and treatment of disease is misapplied frequently, with unfortunate derogatory effect on the public and the tendency to demoralize some members of the medical profession. Over and over again, an erroneous diagnosis is made on the basis of the laboratory findings, which would have been avoided and the correct diagnosis established by available simple methods of examination. This method of practice, and the false impression gained by the public through private and public group medical and surgical service with the usually attendant high cost, are tantamount to commercialism. It is recognized that the general practitioner, both in the city and in the country, lacks sufficient hospital facilities in the care of his patients. This lack is evident in some of the rural districts of practically all the states of the Union. Some feasible constructive program should be adopted which will afford justice to the taxpayers and to the members of the medical profession, and which will provide better hospital and diagnostic facilities where they are needed. We must, however, keep in mind the fact that a majority of patients do not require the application of unusual and refined methods of diagnosis, and also a majority do not require hospital care. The pretentious program of some members of the medical profession and of uninformed members

of the public for the irrational amplification of hospital beds for the treatment of practically all the ill and injured, is unnecessary and uneconomical, and promotes the disorganization of society.

ON MEDICAL EXPERT TESTIMONY

At the last meeting of the American Medical Association the Chairman of the Section on Nervous and Mental Diseases expressed himself in no uncertain terms concerning the present status of medical expert testimony. He said that the usual practice of each side selecting experts who appear in court with a partisan label has led to many ills, not the least of which is the resulting public distrust of our opinions. And he went on to remark further that while psychiartrists share this burden with all medical and professional men such as chemists and engineers, they suffer relatively more damage to their reputations because cases involving questions of mental responsibility are prone to attract a great deal of popular interest and to be exploited by the sensational press. Under these circumstances, even the most friendly and discriminating people are tempted to question not the exactness of the physician's knowledge only, but also his common sense and perhaps at times even his sincerity. If medical men do not always appear sensible and trustworthy when under oath, how can they expect the public to trust them as advisers in their serious and intimate personal problems?

These are hard sayings and coming as they do from such a source, they merit our serious consideration. No one who is not hugging illusions can deny that, taking it on the whole, medical expert testimony is in ill repute. But to lay the whole blame for this state of affairs upon the physicians, as is frequently done, is to further neither justice nor the truth. Physicians, like other men, have to take things as they find them, and things as they find them at present with respect of expert testimony are not to the physicians' liking. Men who have the honor and the good repute of their profession at heart are concerned solely with helping courts and juries to arrive at the truth, to the end that justice may obtain between contending parties; but under the existing system such a result is, we do not say impossible, but certainly hard to attain.

To begin by calling us "physicians for the plaintiff" or "physicians for the defendant" is wrong in principle, and therefore bad in practice. It introduces an atmosphere of contentiousness, a spirit of partisanship, into an inquiry which ought to be a disinterested search for facts and an attempt at their right adjudication. There should be no display of rhetoric and no indulgence in verbal sophistries which cloud the mind and darken the counsel of judge and jury. But as things are now, the medical expert is placed in a false and to him most disagreeable position; for he seems to be, and indeed as examinations and cross-examinations are conducted, he is the advocate of ex parte opinions. Instead of being free to state his convictions, his doubts, his hesitations and ignorances as they issue from the alembic of his own mind, he is con-

strained to express himself in the way prescribed for him by legal formalism and the dialectics of the law schools. A partisan witness, in appearance if not in reality, he speaks with diminished authority to his fellows. For others outside his own ranks to tell him that he fails many times to convince is to supply him with quite superfluous information.

What, then, are we to do about it? Well, for one thing, we can publicly express our dislike of the present situation; more than that, it is difficult to say what we can do. So many factors enter into the problem that it is beset with thorns on every side, but this much is certain, that one of our problems for the future is—if we are to save and augment our self-respect—to make medical knowledge available for courts and juries in such fashion that physicians shall be not even in appearance, partisans of this side or of that, but protagonists of what they believe to be nearest to the truth.—Ed. R. I. M. J.

SHEPPARD-TOWNER ACT REJECTED

The legislatures of Massachusetts and New York, recently adjourned, rejected federal aid as offered through the provisions of the Sheppard-Towner act. The New York assembly, after refusing the money provided by Congress in its enactment of the so-called maternity and infancy law, appropriated $130,000 for "protection of the health of mother, infants and children." This is to be expended by the New York State Board of Health through its Division of Maternity, Infancy and Child Hygiene.

Information just received is to the effect that Rhode Island, also has rejected the Sheppard-Towner Act.

STATE AND COUNTY NEWS

Mrs. Nellie Noel, superintendent nurse of the Princeton Hospital, has been honored by her appointment by Governor Morgan as a member of the State Board of Examiners for nurses, succeeding Dr. Irene Bullard.

Graduating exercises for the nurses of the Princeton Hospital were held at the Virginia Hotel recently, the graduates being Miss Maxwell, Miss Mallohon and Miss Tallichette, each nurse receiving two diplomas, one from the state board and one from the Princeton Hospital. Very interesting talks on various phases of the nursing profession were given by Drs. Wallingford, W. B. Sisson, D. H. Thornton, Sam Holroyd, Rev. S. B. Vaught and Judge H. G. Wood. The diplomas were presented by Judge Wood, and Mrs. Noel, superintendent nurse of the Princeton Hospital, presented the young ladies with their class pins. After the exercises a very delightful banquet was served, Dr. Wallingford being toastmaster for the occasion, after which dancing was indulged in until the wee small hours. Altogether it was a very enjoyable affair.

Dr. T. W. Moore, who has been visiting the Mayo Clinic in Rochester, Minn., for the past two weeks, has returned to Huntington.

Dr. F. O. Marple is spending his vacation with his parents in Pocahontas County.

It will be of interest to the many friends of Dr. R. H. Pepper through-

out the state to know that he has recovered from his late illness, and has opened his offices for X-Ray Diagnosis and Treatment in the Emmons Apartments, Huntington, W. Va.

Dr. J. E. Hubbard of Huntington recently spent some time in Baltimore doing Post-Graduate work.

Dr. C. M. Buckner, who for several years has been associated with Dr. John C. Geiger in the treatment of the eye, ear, nose and throat, has opened offices in the Lewis Block in Huntington, W. Va.

Dr. and Mrs. F. C. Hodges are leaving soon for Greenville, N. C., where they will visit Dr. Hodges' parents for two weeks.

Dr. J. S. Klump of Huntington, W. Va., has returned from a motor trip to Rock Island, Ill., where he attended the Supreme Council of the Grotto. He motored north and west and visited several points of interest.

Dr. Overton Leonidas Baker, Ronceverte, W. Va.; Medical Department University of Louisville, 1894, died May 11th, from uremia and chronic nephritis, aged 60 years.

Dr. Charles H. McLane, Morgantown, W. Va., Starling Medical College, Columbus, Ohio, 1866; Civil War veteran; formerly Health Officer of Morgantown; died April 18th, aged 78 years, from pneumonia.

Dr. F. D. Marcum, is spending a few days at Baden Springs, Ind.

A. M. A. Election

George E. de Schweinitz, Philadelphia, installed as President.

President-elect—Ray Lyman Wilbur, San Francisco.

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Board of Trustees (reelected)—A. R. Mitchell, Lincoln, Nebraska; D. Chester Brown, Danbury, Connecticut; Oscar Dowling, Shreveport, Louisiana.

Meeting Place 1923—San Francisco, June 25-29.

Dr. L. V. Guthrie, Superintendent, Huntington State Hospital, has returned from Quebec, where he attended the 78th annual meeting of the American Psychiartric Association. While there Dr. Guthrie was elected Auditor for three years and reports a splendid and enthusiastic attendance at the meeting.

Vienna, June 30th, 1922.

To the West Virginia Medical Journal, Huntington, W. Va., U. S. A.

The American Medical Association of Vienna wishes to have you announce through the columns of your Journal, the restoration of friendly understandings between their organization and the teaching-body of the University of Vienna.

A Special Committee, elected by the Association, after a thorough investigation of the charges of discrimination against Americans, which were reported by members of our Association and published in our recent memorandum to your Journal, find that the men, who made the accusations of discrimination were either unable or unwill-

ing to substantiate these charges under oath — Further the courses in question were not so called book courses and consequently were not under the control of the A. M. A. of Vienna.

It is the sentiment of this Association, that the men of the teaching body of the University of Vienna have suffered by this unjust criticism.

We further wish to state, that through the efforts of our Special Committee, working with a like Committee from the teaching-body, sufficient numbers of book courses in English and all branches may be had at prices of from $3.00 to $5.00 per hour for the group, taking such sources.

We are very glad to announce this return of friendly relations between the teaching body and our Association and hope that this Communication will be given the same publicity as was given our former memorandum.

JOHN J. GETZ,
B. KAUFMAN,
WM. WILSON.

COUNTY SOCIETY REPORTS

The Mercer County Medical County Society met at the Memorial Hospital, Princeton, West Va., May 25th, 1922.

The staff of the hospital gave a very interesting surgical and medical clinic in the afternoon which was enjoyed by twenty-five visiting physicians and surgeons.

At six o'clock all sat down at the dining-room table to a most delightful repast. From the way the table was decorated with roses, lighted up with candles and the good things we had to eat made us feel as though we were enjoying a wedding feast.

During the little intermission, while we loafed about the hospital and out on the veranda, smoking cigarettes, cigars and telling jokes, the table was cleared off and at 8:10 p. m. the society convened in the dining-room and was called to order by Vice President Dr. R. O. Rogers.

The reading of the minutes of the previous meeting was dispensed with.

Under clinical cases Dr. Sam Holroyd reported a very interesting case which appeared at first to be typhoid fever but later on proved to be a case of osteomyelitis. This was discussed by Dr. Reynolds, W. H. StClair, W. W. Rixie and others.

Drs. Thos. E. Peery and W. H. StClair gave a very good detailed report of the State meeting at Huntington. Dr. StClair tried to impress it upon our minds that we should continue our campaign against cancers by educating the people to consult competent physicians and surgeons in reference to irritated warts, moles, chronic sores about the lips, lumps in the breasts and tenderness or deformities about the uterus.

Dr. O. S. Hare read us an extremely interesting and instructive paper on The General Practitioner's Compensation. This paper received wide discussion but the principal speaker of the evening was Our Good Old Practitioner Dr. Carr who gave us an intreesting talk on the practitioner and the profession of olden times. I wish every physician of West Virginia could have heard what the Doctor said for it is my desire that the Doctor can be induced

to write it up for the State Journal where we can all read it over and then keep it in our library for future reference and as a memorial to our father practitioner of Mercer County. In part he said: "The old time practitioner gained his knowledge to practice medicine not from medical schools but from men, books, and bed-side experience. Barber-pole is said to be the sign of a surgeon. Many of you have not heard of laudable pus. Surgeons now-a-days want wounds to heal by first intention. Cutting on the eye was one of the first operations, cataract was one of the first studies." Doctor said a man may come to town ignorant, the press take him up and the people will flock to him. I have been in general practice 48 years, and am in my 49th year now, when I practice 50 years I am going to quit.

Dr. Wallingford spoke a few minutes on the Shepherd-Towner Bill.

Dr. C. T. StClair suggested that a more detail report be sent in from the family physician to the specialist or surgeon, to give them some history of the case, then they will know whom to return the case to.

Dr. W. H. StClair said he thought the principle thought in Dr. Hare's paper was compensation. The general practitioner is responsible for his poor pay. He should be on hands, bring his patients to the hosuital, see what operation is performed and then charge a fee for his services. Closer co-operation is very important.

Dr. C. C. Peters said patients should be classed in the pay column or charity column.

Dr. J. H. Vermillion spoke of how they have a group of physicians at Kittanning, Pa., who form a black list, stick together and collect 95% of the money due them.

Dr. Hare in closing said the keynote of his paper was co-operation. Some patients are living on the charity of public opinion. We have some doctors who are doing proprietors of hotels and mistresses of boarding-houses practice free or I am told so at least.

Dr. T. E. Vass opened some of our eyes and gave us some new thought when he read a paper on Suppurative Parotitis. He made a report of four or more cases he had sene in the St. Luke's Hospital. This was discussed by Dr. Rixie and others.

The following applications were received: Dr. H. A. Porter, Itman, W. Va., Dr. Ross Morris, Alpoca, W. Va., Dr. J. E. Bloydes, Bluefield, W. Va.

There were twenty-one members and four visitors present.

A rising vote of thanks was extended the staff of the Memorial Hospital for the excellent clinic and fine supper given us.

Adjourned at 10:10 p. m.

H. G. STEELE, Secretary.

The Mercer County Medical Society Annual Picnic

The Mercer County Medical Society held their annual picnic and regular monthly meeting at Glenwood Park, on the Bluefield-Princeton road, Thursday, June 22d, 1922.

Some of the Doctors and their families began to gather about three o'clock in the afternoon and by five o'clock something like a hundred or more had gathered and all enjoyed a very delightful afternoon and eve-

ning outing.

At 5 o'clock most every one present seemed to assist in some way in preparing the table for supper of the many good things to eat, while some were making lemonade, others were carrying water and others arranging the tables and placing the eatables upon them.

At 5:45 we went over beyond the ball-ground on the hill-side and had our pictures taken. I want to say right here everybody took a good picture and if you want something to remember that day and everybody who was there forever just send to Mr. Atkins, the photographer, at Bluefield, your name, address and $1.50 and he will gladly mail you one of the pictures.

At 6:00 o'clock all gathered around the festive board and after the blessing was offered by Dr. D. H. Thornton all enjoyed one of the best picnic suppers we have had for many a year. Some remarked they would like to have this repeated soon.

At 6:50 o'clock the members present convened on a little platform near by and transacted the following business of the society:

Dr. J. R. Vermillion brought up the subject of a full time health officer for Mercer County. To give all the physicians of the county time to give this subject a little thought and be more prepared to discuss it intelligently, it was was postponed till our next regular meeting.

Next the Sheppard-Towner law was brought up and it was decided that this society wants to go on record as being opposed to such a law and the members present expressed themselves as hoping that all the other doctors of Mercer County would discourage this bill in every way possible. It was also decided that a copy of this decision be sent to the Daily Telegraph, Bluefield, the Mercer Recorder at Matoaka, and the Monroe Watchman, at Union, West Va.

A motion was made and unanimously carried that the secretary send to one of our very dear members, Dr. W. I. Gautier of Athens, West Va., our condolence for him during his illness.

The society was very well represented from all parts of the county.

H. G. STEELE, Secretary.

MEDICINE AND SURGERY

NEW METHOD FOR THE DEMONSTRATION OF TUBERCLE BACILLI IN THE SPINAL FLUID.

Dr. Sheo-Nan Cheer, of Boston, describes in the Journal of the American Medical Association a new method for the demonstration of tubercle bacilli in the spinal fluid. Methods in use heretofore have been unsatisfactory in a great majority of instances, owing probably to the fact that the specific gravity of the spinal fluid is higher than that of the tubercle bacillus. The new method seems to overcome this difficulty and should be given ample trial either to confirm or reject Dr. Cheer's conclusion. We quote his

Technic.

Five cubic centimeters of spinal fluid is collected in a well cleaned centrifuge tube. To this, from one-third to one-half volume of 95 per cent alcohol is slowly added, the tube being gently shaken all the while so as to obtain an evenly dis-

tributed cloud of coagulum rather than a single thick ring at the top. More or less alcohol may be added according to the density of the coagulum. In case very little or no coagulum is formed, a drop or two of dilute solution of egg albumin may be added. The optimal amount of coagulum is one that forms a milky appearance, such as one would call a "trace" in urine analysis.

The tube is then centrifuged at a fairly high rate of speed for one-half hour, or longer in case the precipitate is scanty. The supernatant fluid is then carefully decanted, leaving the albuminous precipitate in a very tiny drop of fluid. With a wire or a capillary pipet, this is then transferred to three or four slides, care being taken not to touch the sides of the tube in withdrawing the loop, since the material may stick to the tube and be lost. One slide may be reserved for gram stain or differential count, and the rest stained by the Ziehl-Neelson method.

Since the method was devised, surgeons of the genito-urinary department of the Massachusetts General Hospital have used it with considerable success in demonstrating the tubercle bacilli in the urine of patients with renal tuberculosis. However, they found it necessary first to centrifuge the specimen at a low speed for five minutes to throw down cells and debris. Not many bacilli will be caught in this sediment on account of the relatively high specific gravity of the urine. The clear supernatant urine is then poured off and treated as outlined above.—W. E. V.

CHAULMOOGRA OIL AND LEPROSY

The U. S. Public Health Service has felt it necessary to prevent the too optimistic and extravagant claims recently appearing in the newspapers in regard to the curative effects of chaulmoogra oil derivatives on leprosy. While the use of the oil and of its derivatives has resulted in a considerable number of apparent cures, it is as yet too soon to tell whether these will be permanent.

The ethyl esters of chaulmoogra oil, the use of which has largely supplanted the oil itself, constitute a most valuable agent in the treatment of leprosy. In treating young persons and those in the early stages of the disease, the improvement has been rapid and striking; in older persons and older cases it is less so. Of the cases paroled from the leprosy stations in the Hawaiian Islands so far about eight per cent have relapsed and returned for treatment. This was to be expected; and on the whole the results have been so favorable as to make treatment of the disease hopeful. But only time can tell.

ANEURISMS OF THE AORTA AND X-RAY DIAGNOSIS

L. MOREAU, Arch. D'Elect. Med., Nov., 1921, No. 470, p. 325.

The author calls attention to the fact that while aneurisms are easily diagnosed clinically, especially aneurisms of the aorta, there is one type of aneurisms, those limited to one part of the circumference of the aorta which are easily diagnosed by the screen, yet clinically are mistaken for some other affection. Three cases of such nature are cited.

The first case was one which was diagnosed clinically as intercostal neuralgia. A thorough physical examination was negative, there was no history of syphilis, and no disturbances in respiration or swallowing were complained of. Yet on the radioscopy a large aneurism of the arch and of the descending aorta was revealed. The left border of the aneurismal sac was found projecting by three fingers' breadth from the left heart border. No pulsations were observed. The patient died a few weeks later from a severe hemorrhage, and the radioscopic findings were confirmed on autopsy.

The second case was referred to the author for an examination of the stomach because of hematemesis and pain in the epigastrium. Carcinoma of the stomach was suspected. No history of syphilis, negative Wasserman, negative cardiorespiratory anamnesis and examination. A radioscopic examination showed a large fusiform aneurism of the thoracic aorta. A communication of the aneurism with the esophagus explains the hematemesis.

The third case was that of a woman of thirty-eight, suffering severe pains in the dorsal region of the back. On account of tenderness to pressure on several of the spinous processes the case was diagnosed as Pott's disease. Physical examination and history were otherwise negative. A radioscopic examination revealed a definite aneurism of the arch of the aorta.—A. M. P.—Abstract in American Journal of Radiology.

CONTROL THE ESSENTIAL MESSAGE IN CANCER

In the first place, it is believed cancer is probably not hereditary, and certainly not contagious. The fact that some member of one family has had it does not seem to make the chance noticeably greater that another will have it, nor, on the other hand, does the fact that the family history is free from it make any individual surely immune.

In the second place, the most effective cure known for cancer is surgery. Radium is helpful in some cases, but the quack remedies sometimes advertised are a deadly danger to the ignorant and gullible. The prompt removal of a cancerous growth is usually the one remedy that can be trusted.

In the third place, cancer is far more often cured than is usually believed. Many persons go to the hospitals, to be operated on for cancer, who, because of their dread of the disease, do not let it be known, even among their friends, what the trouble is. They are operated on and cured, and the public generally never knows that this was a case of cancer. On the other hand, those cases which turn out to be fatal, by the long and lingering character of the illnesses, advertise themselves so that people in general have the impression that cancer practically means inevitable doom. As a matter of fact, many of the most experienced surgeons believe that 50 per cent. of cases of cancer, which now come to the physician are cured, and are certain that this percentage could be made very much greater if all cases could be treated early.

In the fourth place, the vital ne-

cessity is early diagnosis. If a surgeon is able to operate soon enough cancer can almost always be cured. and are certain that this percentage could be made very much greater if all cases could be treated early.

In the fourth place, the vital necessity is early diagnosis. If a surgeon is able to operate soon enough cancer can almost always be cured. Therefore, the campaign of education to be undertaken by the American Society for the Control of Cancer is meant to secure this chance for early diagnosis.—Clipped from Campaign Notes American Society for Control of Cancer.

TREATMENT OF GOITER

C. L. HOAG, M. D., San Francisco.

California State J. Med., January, 1922, p. 6.

In the treatment of goiter the pendulum has swing from medicine to surgery, and now over toward radiotherapy. The author makes the critciism that much of the treatment is carried on in a perfunctory way, without proper choice of cases and without a knowledge of the general principles essential to intelligent choice of therapeutic measures. Too many who have little experience in even general therapy are giving treatment for this malady.

Diagnosis of thyroid disease is only the first step—it is just as necessary to recognize clearly the various forms of thyroid enlargement as to distinguish between different forms of intestinal parasites.

For practical purposes the classification given below meets all requirements:

Goiter

Atoxic—1 Simple hypertrophy, adolescent goiter; 2 Colloid, calcified or cystic; 3 Simple adenoma.

Toxic—1 Toxic adenoma; 2 Hyperplastic (exopthalmic).

Malignant—1 Carcinoma; 2 Sarcoma, etc.

In well developed cases it is easy to determine the classification of the goiter, but many border line cases give only mild symptoms and a large goiter may be deficient in thyroid secretion while a barely perceptible gland often is producing an extensive degree of hyperthyroidism.

Since the thyroid secretion seems to be the principal regulator of the metabolic processes of the body an accurate estimate of its activity is secured by determining the basal metabolism in goiter patients. Many diseases influence the metabolic rate, but the influence of goiter is most striking.

In the Crile and Mayo clinics radical operation is not done in toxic cases until the basal metabolism is less than plus fifty per cent. Medical treatment, ligation of the superior thyroid arteries and x-ray are used until this point is reached, and even then the time of the operation must be determined by the phase for each indicated.

The author believes x-ray or radium therapy is indicated in simple hyperplasia and hyperplastic goiters only, and contra-indicated in colloid, cystic, nodular and adenomatous types. Treatment of goiter is essentially surgical, medical treatment. Roentgenotherapy and radiotherapy are sometives curative and are often helpful in decreasing thyroid activity and in preparing

the patient for operation—American Journal of Radiology.

A DIETARY CONSIDERATION OF ECZEMA IN YOUNGER CHILDREN

In about 20 per cent. of the cases analyzed by Edward Scott O'Keefe, Boston (Journal A. M. A., Feb. 18, 1922), there appeared a lowered fat digestion, shown either in the form of free fat or as a definite excess of soap in the stools. In about half this number, or 10 per cent., there has been evidence, clinical or laboratory, of a carbohydrate indigestion. All patients are subjected to protein skin tests. In considering the results of these protein sensitization tests, the patients are divided into: (1) the breast fed and (2) the bottle fed and older children. Among 131 cases of the second class there occurred forty-five instances, or 35 per cent., showing sensitization to one or more of the common food proteins. The foods showing a positive reaction are, in order of frequency, egg, milk, potato, wheat and oat, and an occasional reaction among other foods. The aim of treatment in these cases has been to eliminate, when possible, the offending protein. When this is not practicable, as in the bottle fed baby, the aim has been to secure as thorough a gastric digestion of the protein as is possible. This was sought by careful regulation of the diet in order that it might be proper for the child's age and digestive powers. Any factor in the diet which interfered with thorough and complete digestion of the protein was eliminated. None of these breast fed babies gave any evidence of a fat or a carbohydrate indigestion. Sixty per cent. of them did give evidence of a protein indigestion, as manifested in the positive cutaneous reaction.

The aim of treatment should be to secure complete digestion of ingested protein, either by improving the digestive function or by limiting the intake of offending proteins. Sensitization of the nursling apparently does occur through foreign proteins ingested with breat milk.

CONGENITAL SYPHILIS

Joseph S. Lawrence, Albany, N. Y. (Journal A. M. A., Feb. 25, 1922), assisted in making a survey of the families from which syphilitic patients came to Ward's Island. Among the 254 immediate relatives of seventy-five patients, syphilis was established in fifty cases, or 19.6 per cent. The inmates of a large number of orphanages were also examined. Of 11,205 persons ranging in age from 2 to 21 years, with an average of 10 years, 1.1 per cent. of all gave a four plus reaction to alcoholic and cholesterinized antigens. Defects were most frequently noted among those with positive Wassermann reactions. After the results of the blood examinations were known and the children had been grouped as to whether they had a positive, doubtful or negative reaction, it was found that those with clinical symptoms suggestive of syphilis were not all in the positive group, but that many were included with those having a doubtful blood reaction. It was therefore decided to make a careful survey of the immediate relatives, when possible. The families of fourteen children with positive reactions, of 263 children with doubtful reac-

tions, and of sixty-six children with negative reactions were investigated. It is shown that when the children had positive blood tests, 82 per cent. of the relatives tested were positive, or, in other words, including the fourteen children originally examined, twenty-three cases of syphilis were found among twenty-five individuals from six families. The findings in the doubtful group were equally interesting. Of the 173 relatives tested, twenty-three, or 13 per cent,, were found to have definite four plus Wassermann reactions to specimens of their blood, while the reactions for the children themselves were at best classified as doubtful.

BOOK REVIEWS

Operative Surgery, by Jas. J. McGratte, M.D., F.A.C.S., Professor of Surgery Fordham University; Consulting Surgeon to the People's Hospital, Visiting Surgeon to the Fordham, Columbus and New York Foundling Hospitals; Fellow of the American College of Surgeons: Fellow of the New York Academy of Medicine: Member of the American Medical Association. Sixth Revised Edition with 369 Illustration Including full page color and halftone. Philadelphia, F. A. Davis Company Publishers 1921, price eight dollars net.

This popular students text book and practitioners valuable reference book has reached its sixth edition, revised and up to date. The various subjects considered are arranged under regional heads consisting of the parts as follows: Part 1 of 45 pages is given up to general consideration such as Anaesthesia, Division of tissues, Hemorrhages, Suture of tissue: Skin, Muscle, Tendon, Nerves, etc. Part II Head and Face; Part III Neck and Tongue; Part IV Thorax; Part V Abdomen and Back; Part VI Rectum; Part VII Hernia, Spermatic Cord, Testes; Part VIII Urinary System; Part IX Upper Extremities; Part X Lower Extremities and a well arranged index.

The subject anatomy pertaining to the region embraced in each of the parts is concisely but clearly given and may readily be applied in the operations, the technique of which follows, thus enhancing the value of the book as a convenient reference work for the practitioner who may be at times called upon to do emergency operations.—C. R. E.

The Place of Version in Obstetrics, by Irving W. Potter, M.D., F. A.C.S., Buffalo, N. Y. Obstetrician-in-Chief Deaconess Hospital; Consulting Obstetrician, Columbus Hospital; Buffalo Homeopathic Hospital, and Salvation Army Home. With 42 illustrations. C. V. Mosby Co., St. Louis, 1922. Price $5.00.

Radium Therapy, by Frank Edward Simpson, A.B.M.D., professor of Dermatology, Chicago Policlinic; Adjunct Clinical Professor of Dermatology, Northwestern University Medical School; Attending Dermatologist to Mercy Hospital, Henrotin Hospital, etc.; former President American Radium Society; former vice-Chairman Section of Dermatology and Syphilology American Medical Assn.; Director of the Frank Edward Simpson Radium Institute. With 166 original engravings. C. V. Mosby Co., St. Louis, 1922. Price $7.00.

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APPENDICITIS IN CHILDREN

Read at Annual Meeting of West Virginia Medical Association, Huntington, May, 1922.

By B. B. WHEELER, M. D., F. A. S. C.,
Surgeon King's Daughters' General Hospital, Beckley, W. Va.

There is a very general impression that the incidence of appendicitis is much less in childhood than in adolescence and early maturity, and also that when appendicitis does occur in very young individuals it is always of a severe and fulminating type. While there is no doubt that the greater percentage of appendicitis patients have passed their twelfth birthday, a careful study of operative records will always reveal many reports of the disease in very young children and infants, and it is my belief that chronic and latent appendicitis occur quite as frequently in childhood as in adult life, the reason for the apparent predominance of the acute type being found in the greater difficulty of diagnosis when the patient is very young, and the tendency to make light of the "belly-aches" of which children so frequently complain. Thus many cases of inflammation in the appendiceal region receive no more attention than a dose of some patent laxative or a spoonful of castor oil, until the condition has advanced to the acute stage, when it comes as a complete surprise to all concerned.

Yet even when these facts have been considered and discounted, a search of the literature will bring to light evidence which seems to indicate that appendicitis in children is far more common than the majority of us suppose.

While operation for chronic, interval or mild cases during childhood are exceptional, it is probably because, as Charles E. Farr (4) says, the correct diagnosis is so seldom made, and even where no history of previous acute attacks can be obtained, it is because they have been called "bilious spells," consti-

pation, worms, teething, indigestion, or some other little considered disorder. It is just such attacks as these which correspond to mild or or moderately severe attacks of moderately severe attacks of adults, which are now commonly recognized and cured by operation. This too, explains the higher mortality rate among children, as so frequently, only when he becomes acutely ill, is a child's true condition diagnosed and operated. Farr compares the present state of diagnosis among children with that among adults twenty years ago. At that time general peritonitis, huge abscesses, ileus and similar complications were regular occurrences, and the same condition in large measure obtains today among the child victims of appendicitis.

Those investigators who are convinced that the incidence of appendicitis in children is higher than commonly supposed have brought forward various proofs to uphold their contention. Hess (7) quotes Sahli, as believing it to be due to the great amount of lymphoid tissue in the appendix at this early age and its tendency to rapid increase and secondary degeneration under prevailing influences; so common does he believe this to be that he definitely names it "Angina of the vermiform appendix." Klemn carries the analogy still further by suggesting this to be but a type of inflammation to which all organs rich in lymphoid tissue are subject, examples of which are represented by lymph-adenitis, tonsilitis, osteomyelitis, and so forth. As in the case of the tonsils, an organ so infiltrated is readily affected by intercurrent traumatisms, circulatory disturbances, and injuries by foreign bodies within the lumen, leading to early infection, infiltration, ulceration and gangrene. This etiological relationship has received verification from numerous clinical reports of unusually severe attacks of appendicitis, resulting in abscess formation, which have followed suppurtive tonsilitis, and in which the same streptococci have been found in the appendix as in the tonsil. While it is difficult to prove, it seems highly probable that the appendix and its numerous follicles, are a convenient point of entry for micro-organisms, in this respect resembling the tonsils, which are also organs rich in lymphoid tissue.

While Fowler (5) asserts that the diagnosis of appendicitis in even very young children can be made in the majority of cases "with a fair degree of certainty" before the disease has advanced sufficiently to cause pain in the right iliac fossa, others are not equally optimistic. Hess calls it "one of the most complex problems of modern surgery" because "we have before us an individual entity, who, in all probability, has little or no power of interpreting the special symptoms of the complex group from which he may be a sufferer, and because of his age he cannot be made to understand that it is of prime importance to aid the diagnostician rather than hinder him by crying, restlessness and a general rigidity, which almost invariably predominates in the very young."

The diagnosis is also rendered difficult by the similarity of the symptoms to those which result from the more common and simple gastro-intestinal troubles of child-

hood. If we are dealing with an early and relatively slight attack we will probably witness such phenomena as abdominal pain of a colicky nature, usually referred by the youthful patient to the umbilicus, accompanied by nausea with vomiting, flatulence, tenesmus, and most commonly diarrhea, although constipation is occasionally seen. Slight tenderness can usually be elicited in the right iliac fasso. These symptoms often disappear in a few hours, and even when seen by a medical man—in the great majority of cases they probably are not—they attract little attention. Of course, it is not possible to make a positive diagnosis from such vague symptoms as these, but their presence in combination should suggest the possibility of inflammation of the region about the appendix, and their recurrence without any obvious exciting cause, should increase the suspicion with which the appendix may be regarded.

If the condition is more severe, diagnosis will be relatively easier. When we have a rise of temperature, and palpation shows rigidity of the abdominal muscles, or even a "mass" in the appendiceal region, we will be more confident of our ground. If the child has a history of being subject to colic and indigestion, we must give particular attention to those symptoms which will serve to differentiate appendicitis from them. The pain of colic is not usually so severe as that caused by appendiceal inflammation, neither is it localized; there is no tenderness, nor fever, and the attacks are of shorter duration. In acute indigestion we have pain, but not usually so severe, and although fever may be present, pressure over the right iliac fossa will not reveal any especial tenderness. (3) No one wishes to be an alarmist, and proclaim every child with a "stomach-ache" a victim of appendicitis, but any severe abdominal pain should receive due consideration and careful analysis, for it is only by this means that we can hope to recognize the disease in its early stages, and forestall the grave complications which so often arise in neglected cases. Fowler has operated soon after the subsidence of these early symptoms, and found "undubitable evidence of recent inflammation of the appendix." Usually the history is practically the same as in adults, with this exception, that whereas the average adult with an attack of cramps which localizes in the right iliac fossa will keep quiet and permit the inflammation to localize or subside, children will be up and about as soon as the severe pain has passed.

Children are so frequently fed too much, or permitted the most amazing dietary indiscretions that we must always consider these as factors in the production of the disease. Dull eyes and listlessness with a temperature out of proportion to the severity of the abdominal symptom, point to intestinal indigestion. But the consideration of "indigestion" may cause serious delay, because all-too-often the child has been given a laxative before the physician is consulted, and if inflammation is present, it may very well be spread by this means.

The diagnosis in very young infants is, of course, even more difficult than in children who can assist in indicating the symptoms. More-

over, the symptoms of appendicitis in infants show such marked variation from those which occur in older children and adults, that the presence of the diease in very young children is worthy of special attention. The almost complete absence of subjective symptoms in infants renders the diagnosis not only difficut but, at times, impossible. Pain and tenderness which are almost universally present in older individuals, are difficult to elicit and more difficult to localize in the first months or years of life. On the other hand, vomiting, one of the symptoms of appendicitis, occurs so frequently in the gastro-intestinal, nutritional, and toxic diseases of infants, that under very few conditions can it be considered pathognomic. In most instances vomiting is not even suggesive of appendicular inflammation. (1)

Abt collected from the literature thirty-seven cases of appendicitis occuring in infants under one year old. Two of these were "possible instances of prenatal appendicitis." In eight babies under three months old there was an associated strangulated hernia. Nearly all the little patients had fever and vomiting, and in most of the cases there was a tumor mass in the right iliac region. In a number of cases diarrhea was recorded; in others there was diarrhea followed by constipation. In two cases bloody stools and abdominal distension led to a diagnosis of intussusception, but operation disclosed a perforated appendix. Abt remarks that "one may readily understand that a diagnosis of intussusception would be strongly suggested in a baby who had fever, vomiting, pain and a distended abdomen, with constipation and bloody stools." He regards rectal examination as of great importance in diagnosing appendicitis in very young infants. "Where there is palpable resistance on the right side in the presence of other symptoms, the diagnosis of appendicitis should be strongly suspected. Kurchmann, who made an analysis of all the cases of appendicitis in young children occurring in the Johns Hopkins Hospital, found that in one child suffering from appendicitis the diagnosis of vesical calculus was made, in another child with appendicitis of tubercular arthritis."

Hess (7) points out that muscle spasm or rigidity of the right rectus is present unusually early in children, but it is difficult to elicit and localize because of the child's fear of examination, and its tendency toward general rigidity of the abdominal muscles. But as its elicitation is one of our most valuable diagnostic aids, it is well worth while to exert our skill and patience to obtain it.

Spontaneous pain is usually manifested in very little children by fitful crying, alternating with sleep. In typical cases it is at first localized at "McBurney's point," but it soon becomes diffuse, radiating from the umbilicus into the pelvis. Young children complain of "stomachache," often lying curled up on one side. Less frequently we will find the pain referred by boys to the right testicle, or to the neck of the bladder, on account of the close relation which the ureter bears to the area of inflammation.

When the infiammation has become peri-appendicular, and a localized plastic peritonitis is present,

the diagnosis is not usually difficult. Dun (3) has found that under these conditions diarrhea is at first more common than constipation. Muscular rigidity of the abdominal wall will now be well-marked. Distinct local resistance to palpation, with dullness, will be present, and the general constitutional disturbance correspondingly greater. The right thigh is by no means invariably flexed; this sign appearing to depend upon the relation of the appendix to the psoas muscle and the amount of the surrounding inflammation. Bladder irritation, as indicated by painful and frequent micturition, and sometimes even by retention of urine, is often noted. The abdominal position of the bladder in children, and its consequent close relation to the appendix, sufficiently explains the occurrence of this symptom. A bi-manual examination made with one hand on the abdomen and a finger in the rectum often yields important information; a most satisfactory examination of the appendix region in children can be obtained in this way.

When the inflammatory process has reached this stage the main question to be decided is whether pus is forming or has already formed. If the acute symptoms persist for seventy-two hours or more in spite of treatment, abscess formation is probably on the way. This is also probable if the temperature remains high, while the other symptoms subside, or if—having once fallen to normal—the temperature begins to fluctuate; chills are very rare in young children. If local swelling remains in evidence, when other symptoms have disappeared, it is a pretty fair indication of pus-formation. A rectal examination will often decide all these points, as definite fluctuation can usually be recognized on bi-manual palpation. Rectal examination is particularly valuable in children, because the examining finger reaches much further than is the case when the patient is an adult. Fowler (5) believes its routine employment would lead to earlier diagnosis in a considerable proprotion of cases. Indeed, in some patients, in whom the appendix lies in the true pelvis, it is only through the rectum that the enlarged appendix or abscess can be felt.

There are cases in which the appendix lies in the pelvis and and in which the infection is pure colon bacillus. Under these circumstances the exciting cause seems often to be a marked indiscretion in diet. The physician is called to attend a child who has vomited indigestible material, for instance, a last year's candy Easter-egg or a breakfast of discarded bananas—as happened in two of Fowler's cases—and the vomiting is frequently repeated. There is diffuse abdominal pain, but no rigidity, and a slight diffuse tenderness; fever may or may not be present; but the child continues to vomit and has diarrhea. The physician, quite naturally, makes a diagnosis of gastro-intestinal irritation from indigestible food, and the treatment usually outlined is a course of calomel, followed by magnesia and starvation. The bowels, move, the abdominal pain disappears, and the patient is restrained in bed for a day or so. Perhaps an apparent cure has been accomplished, when there is a sudden rise of temperature, accompanied

by acute pain in the lower abdomen, and palpation will show rigidity of the lower abdominal wall. Then the medical attendant will usually think of a possible appendicitis, and a laparotomy will reveal an abscess surrounding the appendix, with an attendant spreading peritonitis. In such cases an early digital exploration of the rectum would have disclosed the condition. Fowler explains such a case as this as due to the location of the appendix and the fact that we are dealing with a pure colon bacillus infection.

Blood examination is also helpful in a doubtful diagnosis. A leucocytosis can frequently be obtained before there is involvement of the peritoneum, and often before the appearance of temperature. If one can obtain a leucocyte count of 15,000 or above, during the first eighteen hours following the onset of symptoms, there should be a strong suspicion of inflammation in the appendix region. A blood count is as easily carried out when the patient is a child, as when dealing with an adult.

Bower (2) has had many children come to operation after a diagnosis of "ptomaine poisoning" or acute intestinal colic. In these cases the presence of diarrhea, rather than constipation, the abscence of leucocytosis, and the cessation of vomiting following stomach lavage, together with a history of some indiscretion in diet, makes the diagnosis of toxemia evident.

Not infreqquently attacks of acute pyelitis, especially in infants, may simulate the beginning of appendicitis so exactly, as to deceive the most expert, until urinalsys reveals the location of the trouble in the kidney instead of the appendix. In little girls a possible vaginitis must also be excluded. As already noted, intussusception may offer diagnostic confusion in very youthful patients, but here the characteristic "overflow" vomiting, the absence of abdominal rigidity, and the size of the tumor mass; more than all the evacuation of blood and mucus with the stool, will usually guide the axaminer to a correct diagnosis.

The transferred pains of pneumonia or other chest involvement have very frequently been mistaken for appendicitis. The associated pleurisy in pneumonia may give rise to pain referred to the abdomen, and this has often been mistaken for that of appendicitis. This probably occurs only when the diaphragm is involved in the inflammatory process, in which case the twelfth intercostal nerve is irritated, and the stimulus is perceived as coming from its terminal filaments, whcih are distributed over the area usually associated with disease of the appendix. A reference of this kind frequently takes place in children, and when associated with abdominal rigidity, chills, elevation of temperature, and a rapid pulse, is apt to lead to the diagnosis of appendicitis. This is all the more likely to occur when, as in many cases, the signs of the pneumonia do not appear until twenty-four to forty-eight hours after the onset of the disease. (Behan).

Abdominal tuberculosis is relatively common in children, and is not infrequently brought to operation under a diagnosis of appendicitis. There is usually a history of recurrent attacks of a colicky na-

ture, temperature, rather severe vomiting, and more or less complete constipation. Laparotomy will disclose a varying amount of fluid free in the abdomen, but an apparently normal appendix; frequently the mesenteric glands will be noticeably enlarged in the region of the cecum, or the bowel itself studded tubercles. Fortunately, operation in these cases, does good rather than harm, and the extirpation of the unjustly accused appendix has often been followed by a marked improvement in the tubercular condition.

Removal of the diseased appendix is universally acknowledged as the only proper treatment for appendicitis, no matter what the age of the patient. Bower, however, sees a contra-indication to operation in an early perforation, with a widespread streptococcic peritonitis. He also believes operation unwise if there is a general peritonitis existing before the patient is placed in the surgeon's hands. Dun, on the contrary, believes that where perforation of an appendix has been followed by acute general peritonitis operative interference offers the only hope of saving life, and that the best procedure to adopt is the rapid removal of the appendix through the usual incision, and the insertion of a large drainage-tube at this point. He also makes incisions in either flank, through which he brings three other tubes, introducing them at the middle line in front, just above the pubis. He then irrigates with saline solution through all four tubes.

In closing, I would emphasize the fact that appendicitis in children is not uncommon; that when it does occur it is usually not more severe than that of adults, but because of the difficulties of diagnosis in young patients, the mild cases are very frequently overlooked, or called by some other name. Recurrent attacks of colic, and frequent diarrhea and bladder irritation in little children, should always be carefully investigated, and all persistent abdominal symptoms—even if perfectly explained by the parents —should be considered worthy of attention by the competent family physician.

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References

(1) Abt, I. A. Appendicitis in infants. Arch. Ped. 34:641, Sept. 1917.

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(2) Bower, J. O. Appendicitis in children. N. Y. Med. J.: 108:501; Sept. 21, 1918.

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(3) Dun, R. C. Note on appendicitis in children, Glasgow M. J., 63:410; 1905.

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(5) Farr, C. E. Appendicitis in children. Arch. Ped. 36:207; 1919.

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(5) Fowler, R. S. Appendicitis in childhood. Am. J. Dis. Child., 4:97; 1912.

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(6) Gilbride, J. J. Appendicitis in children. Pennsylvania M. J., 22:721, August 1919.

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(7) Hess, J. H. The diagnosis of appendicitis in children. Arch. Ped. 22:207, 1905.

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(8) Vincent, W. J. Acute appendicitis in infancy and childhood. Med. Rec., 85.9: Jan. 5, 1914.

THE TONSIL AS A SOURCE OF FOCAL INFECTION

By T. W. MOORE, M. D., Huntington.

Read at Annual Meeting of West Virginia Medical Association, Huntington, May, 1922

It is interesting to review the literature of the association of tonsils to systemic disease. As far back as 1789, Eyerlin (1) of Christiana, considered the relation of tonsilitis to rheumatism as clinically evident. In 1818 Benjamin Rush (2) reported a case of rheumatism of the hip accompanied by toothache, which was promptly relieved by extracting a decayed tooth. I allude to this, not as a tonsil infection, but to show the recognition of focal infection at this early date.

For nearly one hundred years, little or nothing was written. A notable exception is a private letter of Sir Andrew Clark (3) written in July 1889, where he says "If one will think merely of the rapidity with which tonsil manufactures and discharges lymph cells, it will not be difficult to see how a sudden suppression of this process, the accumulation of effete matters in the crypts, and the filling up the lymph spaces with products of bacteria life, and with matters undergoing evolution may contaminate the blood and originate the trouble considered as rheumatic."

In quoting this letter ten years later, Lenox Browne, to whom the letter was written, adds "Since that date this contamination of the system, or blood poisoning, has been acknowledged to be of microbic origin by several observers."

Sir Andrew Clark's knowledge of the anatomy of the tonsil could have been written today with very little variation; as you will see by the following quotation from a paper by an eminent laryngologist last year. "Histologically the tonsil appears to be a mass of lymphoid tissue supported by a frame-work of fibrous tissue, the capsule into which muscle fibres from the superior pharyngeus penetrate to a certain extent. This tissue contains many crypts which are usually branched and may contain pockets. The pockets often contain broken-down and effete material which, unable to escape may break down into pus and be absorbed into the general system. The epithelium lining, the crypt, is of the same flat corneus type as that covering the tonsil. When the tonsil degenerates it is because of the development of fibrous tissue therein, which chokes out the lymphoid tissue, and the atrophy which follows results in the small, hard, fibrous tonsil."

Going back to the literature of the tonsil in its relation to systemic disease, we find that since 1909 about 220 papers have been written upon this subject; about (4) sixty of which have contributed data based upon research and clinical work, to prove this association from a scientific standpoint. The physiology of the tonsil is still an unknown quantity. We know no more about this than we did thirty years ago, and apparently know less; for our knowledge of the function of other organs of the body has advanced so much. On account of this lack of knowledge much speculation has been indulged in, usually supported by no proven facts.

One is astounded at the tremendous list of ailments of which the

tonsil is accused of being either a direct or contributing etiological factor. Not by the laryngologist, but by the internist, the pediatrist, the surgeon and other students of special branches of medicine; and one most important fact that has been conclusively proved, is that the tonsils may offer foci of infection which are only manifest by remote general symptoms, when the tonsils have never given cause for suspicion.

Keiper (5) who has systematically classified this list from the literature, arranges the diseases in the following groups:

1. Genitourinary group, including acute nephritis, pyelocystitis, albuminuria, paranephritis, acetonuria following quinsy, orchitis, hematuria, with and without albuminuria, ureteral strictures.

2. Arthritic group, including all the infections of the joints.

3. Rheumatic group, including neuralgia, lumbago, perineuritis, myositis, tendosynovitis, sternomyelitis, indurative headache.

4. Cardiovascular group, including acute myocarditis, endocarditis, phlebitis, acute leukemia, anemia.

5. Eye group, including iritis, focal choroiditis, optic neuritis, hemorrhagic retinitis, paralysis of accommodation.

6. Ear group, including suppurative and non-suppuriative otitis media, otosclerosis, mastoditis, Gradenigo's syndrome, disturbances of equilibrium, ear ache.

7. Pulmonary group, including tuberculosis, asthma, secondary pleurisy, bronchopneumonia.

8. Gastrointestinal group, including gastric fever, ulcer of the stomach, appendicitis, recurrent vomiting, jaundice, pyorrhea alveolaris.

9. Glandular group, including splenic infarction secondary to phlegmonous tonsilitis cervical adenitis of the tubercular type with abscess formation, parotitis, goiter.

10. Infectious disease group including influenza, scarlet fever, diphtheria, measles, poliomyelitis.

11. Nervous disease group including chorea, hemiphlegia, meningitis, vertigo recurrent encephalitis and meningitis.

12. Septic group including septicemia, severe sepsis, general infection.

13. Miscellaneous group including many skin lesions, bad breath, increased temperature, febriculae without other symptoms, bad dental arches, voice disturbances, aprosexia.

This is quite a formidable array of symptoms for which the tonsils have been removed.

Beebe remarks that there is no complicating factor in goiter, which is more troublesome or more dangerous to the patient than tonsil infections, to which they are subject. This observation is significant, as repeated tonsillar infections at more or less regular intervals are usually exacerbations of a chronic focus and not fresh infections.

A phase of systemic infection that I was very slow to believe could be caused by tonsils, is the effect on the liver and biliary secretions; but which I am now convinced is as J. Leslie Davis (6) says, due to the poison incident to putrefaction that takes place in diseased tonsils Whether it acts on the liver in a way that inhibits the secretion, or whether it acts on the bile itself as

a neutralizing or transforming agent, I am not prepared to say, but the ultimate effect is to produce both the local and systemic symptoms of toxemia.

Through this indirect process I believe the tonsils to be the most frequent and common cause of colds in the head, so-called bilious headaches, intestinal indigestion, and even appendicitis by weakening resistance to infection itself. I further believe that many cases of cardiac arrhythmia are results of the same toxic influence. Davis cites his personal experience, telling how in childhood he was subject to frequent sore throats, tonsilitis and colds. During adolescence the throat affections became less frequent and he was considered in good health though poorly nourished, and not physically strong. The same physical conditions continued into early adult years, though with each passing year the susceptibility to colds and throat infections continued to decrease, with the exception of two or three years following an attack of measles at the age of 20, when the earlier susceptibility to colds recurred. Between the ages of 21 and 25, three severe attacks of appendicitis were experienced, though they were successfully treated without operation, and have not recurred since. He states that he never suffered any other severe illness, and though 6 feet 2 inches in height, his weight ranged between 130 and 135 pounds for a period of twenty years from the age of 20 to 40. At about 35 years of age, he began to have occasional "sick headaches," and about five years later developed an irregular heart, symptoms of which at first would last only a few days or less; then it would probably seem normal for intervals of a week or two or even longer. These intervals between attacks, however, grew shorter during the next two years, while the headaches occurred oftener and were more severe. Examinations by three competent physicians gave assurance of no organic legion, but the arrhythmia became so marked that when lying in any position other than on the right side that rarely a comfortable night's sleep was obtained, though the usual routine of each day's work was performed. Then the following associated phenomena were observed: The headaches were always preceded and accompanied by a bad taste in the mouth and an "aromatic" or acetone odor to the breath. With the development of these symptoms, the feces became clay-colored, a condition which a combination of calomel, blue mass and compound extract of colocynth would not only relieve, but which when taken in time (as suggested by the peculiar taste, as of tonsillar exudate) would in a large measure obviate both the headache and the heart irregularity. While this was a great improvement in both physical and mental comfort over the previous two years, it could not be called satisfying, and in August, 1916, his tonsils were enulcleated; since which time his heart has been regular.

The characteristic premonitory taste has never returned at all, the headache has not recurred more than two or three times, and then in mild form; while the liver has functioned practically normal ever since, and his unvarying weight has been

168 pounds.

I have many cases on record similar to the foregoing in many respects, though not all having the heart symptoms, whose results from operation were as encouraging as they were convincing.

My own personal case is equally striking. I had measles and mumps in childhood. While a medical student, was bitten by a cat, from which a slow infection developed, resulting in breaking down and removal of epitrochlear and axillary glands of right arm eight months later. In 1913 I was run over by an automobile, sustaining two fractures ofpubic bone and of transverse process of fourth lumbar vertebra, and numerous minor injuries. This laid me up for about four months. In April, 1917, I discovered a tenderness in the joints of my fingers. I immediately had my teeth and sinuses X-rayed with negative results. My tonsils were then examined and pronounced small and negative. A few weeks later I developed a very disagreeable urticaria; this was followed by the most distressing itching of palms of hands and soles of feet. Then I became jaundiced with putty like stools which continued for about one month, when I began losing weight rapidly — fifteen pounds in two weeks. Then one of my medical friends who had looked at me several times in the cursory manner accorded our medical friends, suggested the possibility of carcinoma of the liver. I went to a neighboring city where I was examined in the most thorough manner, and a final decision reached that the tonsils were the sole cause of my trouble; and told that I could not think of working for three months. The tonsils were removed, and I left for a rest with instructions to report for observation in ten days. After ten days I had improved so much that I was permitted to return to my work; the only proviso being that I rest of afternoons. This was in September of 1917, and so far I have had no recurrence of my trouble.

It is very important that routine and frequently repeated examination of the urine be made in cases of tonsilitis and especially its mild forms.

Dr. Hanau Loeb (7) has pointed out this relationship to which his attention was first called in a member of his own family. He reports four cases in which he was able to rule out scarlatina and diphtheria; in fact it is interesting to note that in the latter condition the nephritis occurs concurrently with the acute disease, while it tends to follow the tonsilitis. Leyden (8) in 1881 called attention to those so-called acute spontaneous nephrites following exposure to cold and wet, etc., and in which he was able frequently to obtain a history of tonsilitis. One observer reported as high as seventy-five per cent of his cases of tonsilitis followed by albuminuria. The results of eradicating foci of infections in the insane by Cotton, (10) is a brilliant chapter in psychiatry. At the New Jersey State Hospital, the average rate of discharge of patients from the hospital was 42 per cent. That is, for a period of years previous to 1915, forty-two out of every hundred patients admitted were discharged; fifty-eight out of each hundred remained in the hospital for a period of years and died there. Since 1915,

Cotton has searched for foci of infections in these insane patients and eradicated them. Since this practice was inaugurated he has discharged 87 per cent of the patients admitted to the Insane Hospital cured, or so much improved that residence in a madhouse was no longer necessary.

We must remember as Hill Hastings (11) says, that every adult's tonsil is a chronic infected tonsil, from which a positive culture can be made. The same is probably true of most tonsils in children.

Notwithstanding the overwhelming array of evidence against the tonsil as a disease producing organ, there are those who close their eyes to the facts and oppose removal of the tonsils. One of the most persistent arguments being that their removal in childhood retards the child's development. Let me quote to you a few statements by eminent authorities brought out in a symposium of Child Hygiene.

Dr. La Fetra (12) the eminent pediatrist said "I have never been able to notice any abnormality in growth or development of those boys and girls whose tonsils were removed in early childhood. Whatever advantage the tonsils may have physiologically, it would seem that nature has provided sufficient other tissue of the same sort to take up vicariously the work of the tonsils when these are removed. As regard their susceptibility to disease, I would say that children whose tonsils have been removed are much less susceptible to respiratory and gastro-intestinal disturbances of all sorts, moreover, when they have measles, scarlet fever or whooping cough, the disease is much less pronounced than if the tonsils had been present."

Dr. H. H. Forbes (13) says in the summary of his report, that from 80 to 100 per cent of the contagious disease cases had tonsils present.

Dr. Lynah (14) of N. Y. says, "In our contagious disease hospitals the percentage of admissions in whom tonsilectomy has been performed is from 2 to 4 per cent. The 96 to 98 percent have tonsils in various degrees of sizes."

Dr. D. W. Layman (15) Indianapolis, "I notice that many of the children from whom the tonsils have been removed are not entirely immune from cough, nasal colds or even ear disorders. However, it is apparent to me that the younger class under six years of age are more susceptible to these affections than a class of children operated between 8 and 12 years of age. But even if the tonsils in young children serve as defense in establishing immunity in certain affections or ailments, my contention is that these postoperative ailments that may follow because of this lack of so-called defense are trivial as compared to the severe contagious diseases and complications a tonsil child is liable to contract."

There is of course the argument against improper or imperfect removal of the tonsils, but this applies to every branch of surgery.

To me the the tonsil like the appendix, is a vestigial structure. Knowledge of the harm it does is abundant and universal. Its usefulness is purely problematical, speculate as we will regarding its place in the economy, and its usefulness to the organism, no use can be demonstrated.

In 1914 one of the most scholarly as well as most careful thinkers in the field of laryngology wrote (16) "We have become so accustomed to hearing the teleological question raised by our patients (among whom it seems to have profound religious significance) that we have fallen into the habit of brushing it aside. Almost daily I am asked 'Did not God give us tonsils for some purpose? Is it not wrong to take them away?' "

Teleology is pre-Christian in its origin, having been a part of the teachings of the Greek philosophers hundreds of years before the Christian era. It remained for the most part of philosophical concept until Darwin, in 1859, announced his discovery of a mechanical cause actually existing and demonstrable, by which organic evolution must be brought about. It was Darwin's study of the adaptation of organic structures to the service of the organism in which they occur that revived teleology, giving it for the first time a scientific foundation.

While preparing this paper I had a letter from this author in which he states "I think sometime when I have the opportunity and courage to do so, I shall enlarge upon the teleological idea to suggest that nature avails herself of the various vestigial structures of the body to carry out her larger plans i. e. the preservation of the species — in which plan the individual is only of course an incident — that the tonsil is possibly the most useful instrument of all the vestiges, in disposing of the individual in order that the species may survive.

The inexorable law prevails everywhere that the individual must die. Birth, reproduction and death succeed each other, and it is just as important to have the necessary provision for any one as for the other two. Throughout the animal and vegetable world the individual life is disposed of through the action of other forms of life which presupposes certain points of vulnerability. We call these invasions infections, and they lead to the processes that undermine us slowly or rapidly as the case may be, but surely to the end that the individual life is extinguished. The infections come in a multiplicity of form, and through numerous points of entry. But the tonsil is one of the commonest, if not the commonest portal, and is invaded by a great variety of organisms, and so serves admirably the purpose of nature in this particular.

Of course we doctors don't treat the species but the individual. The old idea of the beneficence of nature is so born in us so to speak, and so mistakenly mixed up with our religion that we still talk about aiding nature and so on, while we are reall doing our best to frustrate nature and beat her at her own game. We take out tonsils because it is our stunt to look after the individual to keep him well, which means to prolong his life. Nature is too resourceful, however, she has other instrumentalities which we have not learned to frustrate, and so she will probably be able to continue to dispose of the individual in spite of doctors.

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1. Eyerlin. Materia Rheumatica ad Tonsilitis.

2. Rush, Benjamin. Medical Inquiries and Observations.

3. Browne, Lennox. Throat and Nose, 5th Ed. London 1889. Page 335.

4. King, J. J. Focal Infections of the Head as a Source of Systemic Disease, Trans. Amer. Acad. of Ophthalmology and Oto-Laryngology.

5. Keiper, George F. The Tonsil Question to Date. Trans. Am. L. R. O. Society, 1921, Page 260 et. seq.

6. Davis, J. Leslie. Diseased Faucial Tonsils, Their Toxic, Infections and Reflex Effects. Trans. Sec. Laryng. Otol. & Rhin. A. M. A. 1918, Page 144, et seq.

7. Loeb, H. W. Acute Nephritis, Following Acute Tonsilitis. Trans. Am. L. R. O. Soc. 1910, Page 146.

8. Leyden, E. Ueber das erste Stadium des, Morbus Brightii und die acute oder frische Nephritis. Zeitsch. f. Klin. Medic. Vol. iii 1881.

10. Cotton, H. A. Focal Infecfections in Relation to Psychiatry.

11. Hastings, Hill. Trans. of 43d Annual Congress Am. Laryng. Assoc.

12. Layman, D. W. Trans. Am. L .R. O. Soc. 192, Page 266.

13. Same.

14. Same.

15. Same.

16. Sanger, Frank Dyer. Some Phases of the Tonsil Question. So. Med. Jour. Aug. 1915.

Discussion of Dr. T. W. Moore's Paper

Dr. Thomas E. Peery, Bluefield:

Since listening to that paper, I have very little to say. I would say, however, that the doctor has dealt with the subject to the fullest extent and I can only endorse his statements. I certainly wish to thank the Doctor and I appreciate his masterpiece.

Dr. R. H. Walker, Charleston:

There isn't much left to discuss. However, some points perhaps could be emphasized. Focal infection is not always recognized. A lot of people say their teeth or tonsils are not hurting them and because they are not hurting them, they they are causing no bad effects. A man in my office recently had a contraction of the toes, yet I could not convince him that his rotten teeth was the seat of infection. We all see such cases following tonsilitis.

Dr. Frank LeMoyne Hupp, Wheeling:

It is only a word of commendation I wish to offer on so good a paper and a message developed along so scientific a line.

I think it is our imperative duty when searching for a focal infection or cause of some metastatic process to remember the organisms are distributed over the entire anatomy by way of the blood and lymph streams and we should have the open mind and allow no part of the body to escape our investigation. Too often we sacrifice perfectly good teeth because forsooth of some dubious shadow in the X-ray plate, or ruthlessly bore into an antrum or ethmoid when the real cause is a gall bladder or appendix, or where a fallopian tube or seminal vesicle is host for an old bug of Neisser.

No stone should be left unturned, no diagnostic aid should be omitted if we are to give these patients a square deal.

As my good friend Coleman of Augusta has so well said, "Foci of

infection when removable, should be removed, but removal should be a treatment and not a diagnostic procedure."

Dr. H. D. Hatfield, Huntington:

I just came in towards the last of Dr. Moores' paper but I was wonderfully impressed with what I did hear and I am sorry I did not hear the full text of his paper.

Dr. C. T. St. Clair, Bluefield:

There are two kinds of focal infection, primary focal infection and secondary focal infection. The primary ones are few. The secondary ones are many, and are dependent for their source on the primary

Bacteria must gain their entrance to the human body by way of the skin or mucous membranes of the body. We all know that the intact skin is to all intents and purposes impervious to bacterial invasion, and that the outlets, viz. the anus and urethea, of the body, except under unusual instances, do not likely become portals of entrance for bacteria. So there remains but two inlets, the mouth and nose, through which the great majority of bacteria gain access to the system.

The nose, which was made to breathe through and to smell with, the beginning of the respiratory apparatus, is wonderfully endowed to prevent the access of bacteria to the human system. At its entrance are placed numerous hairs, its lining membrane is furnished with innumerable secreting glands, has an abundant blood supply, and is thrown into many varied and curious folds and shapes, all of which is for the purpose of breaking up the incoming current of air into many eddies and currents and cross-currents, that this air may be properly cleaned and warmed and made ready and fit for its reception by the lungs.

The mouth was made to eat with and to talk through, and while it is not so well fortified against invasion as is its neighbor, yet it has its neighbor, yet it has its line of defense in its lymph nodes, the tonsils, which were put there for a very definite purpose, that is to protect the lungs and other organs below, against harmful bacteria, by entrapping and taking into themselves these, and destroying or encysting them. This noble work they perform admirably up to a certain point, that is until they atrophy, or themselves are overwhelmed by this primary infection, and not being capable of longer destroying the invading host, themselves become a primary focus of infection, or as Sir Almroth Wright has called such, an ec-phylactic region, allowing the entrapped organisms to multiply within themselves, supplying bacteria and their products to the blood and lymph streams, thereby produc-widespread danger and destruction.

It is admittedly difficult many times to know where to draw the line between tonsils which are infected and those which are not infected, but it would seem from our present knowledge unwise to condemn unoffending tonsils in young children under four years of age, and it certainly would be still more unwise to allow tonsils to remain in any individual who is suffering from a secondary infection, especially if no other primary or secondary focus is demonstrable, and certainly if from history and examination the tonsils cannot be "passed up" as un-

questionably blameless.

It has been found by more than one careful observer that many more than half of the persons seeking medical treatment are suffering from diseases due to obvious focal infections, that not only the common and better known diseases, such as arthritis, heart disease, nephritis, neuritis, cholecystitis, herpes, chorea, irido-cyclitis, iritis, keratitis, phlibitis, etc., but the rarer and less understood diseases, as, epilepsy, goitre, anemia, some of the manias, also have or may have as their causative origin some primary or secondary focus of infection.

A brighter outlook for the coming generations is to be expected, for with the eradication of venereal diseases (is that asking too much), and tuberculosis, and focal infections, most of the diseases of the human race would disappear, for disease can hardly exist without focal infection.

Dr. Moore is to be congratulated upon this splendid exposition of this, perhaps the most important subject in the whole realm of medical research, this contribution to preventative medicine.

EX-OPHTHALMIC GOITER

By H. H HAYNES, M. D., Clarksburg

Read at Annual Meeting of West Virginia Medical Association, Huntington, May 18, 1922.

Goiter was mentioned in Indian literature 2,000 years before Christ, and mention of goiter is found in Caeser's writings on the Gauls. As practically every phase of ex-ophthalmic goiter is preceded by a period of simple goiter, it is very important to consider first goiter in general. Endemic goiter has been proven a deficiency disease, due to iodine starvation. In recent years there is no medical work which equals in importance the monumental work done on goiter. The most advanced modern work in goiter has been done chiefly by Kimball, Marine, Kendall and Lenhart. Marine and Lenhart working in the department of Experimental Medicine of the Western Reserve University, proved the ease with which goiter could be prevented in animals. Goiter in sheep was destroying the sheep industry in many areas of the Great Lakes region, and they found that by giving minute quantities of iodine in salt, that goiter could be prevented. Goiter in trout threatened to destroy many of our best hatcheries. Marine and Lenhart working with the Pennsylvania Game Commission, found that small quantities of iodine added to the water eliminated this trouble. Marine and Kimball, in their work in the publis schools of Akron, Ohio, proved beyond all doubt that endemic goiter can be prevented by giving two gramms of sodium iodide twice a year. The old idea that goiter was a water-borne disease and influenced by elevation, has been disproven. The reason that children of the sea shore are free from goiter, is because of the abundance of iodine found in sea food, in the soil and to a certain extent, in the air. When this iodine is supplied artificially to man, animals or fish, in goitrous regions, they rapidly become goiter free. Crile makes this statement "By the proper administration of iodine to the pregnant

mother, and to the child, up to and through the period of adolescence, endemic goiter may be prevented."

Diagnosis

Ex-Ophthalmic Goiter or Hyperthyroidism in typical advanced cases, is so characteristic that the milk-man or the post-man will diagnose it correctly, but early cases of hyperthyroidism are constantly being confused and differential diagnosis may be extremely difficult. The cardinal symptoms of ex-ophthalmic goiter are, (first) the presence of an enlarged thyroid; (second) ex-ophthalmus; (third) tremors; (fourth) tachycardia.

Changes in the thyroid gland:

The thyroid may not show externally that it is enlarged. However, careful observers believe that there is always more or less enlargement, but that the amount of hyperthyroidism does not necessarily bear any relation to the size of the gland. The eye signs are very important, and most characteristic when developed, but frequently they do not develop until late in the disease. The eyes have a staring expression; ex-ophthalmus is usually bi-lateral, and the degree of ex-ophthalmus varies greatly. The chief ocular signs are: Von Graef's sign (lagging of upper-lid in looking down), Stellwarg's sign (the long period between blinking), Daryimple's sign (widening of the palpebral fissure), Moebius' sign (decreased power of convergence).

Vasmotor and trophic changes:

The skin is soft and moist, perspiration is free in the armpits and on the extremities, dermatographia is nearly always present; pigmentation is not uncommon; the hair is scanty and often the nails show marked disturbance of nutrition.

Subjective symptoms:

Sensations of warmth, pruritis and vague unpleasant sensations are complained of.

Blood changes:

A mild Lymphocytosis is usually found.

Vascular system:

Tachycardia is a constant symptom and every case of tachycardia that cannot be satisfactorily accounted for, should be carefully looked into, to exclude hyper-thyroidism. The volume of the pulse is full and throbbing and is very pronounced in accessible arteries. In advanced cases, various forms of arythmia are seen, and there are marked signs of myocardial degeneration and cardiac decompensation. Cardiac hypertrophy is constant in this stage, but not in the earlier stages. Blood pressure is not very characteristic, but the pressure is usually increased.

Respiration:

The respiration is shallow and irregular and the rate is increased and it is common in advanced cases to notice frequent gasping and other evidences of air-hunger. The voice is often affected and varies from hoarseness to aphonia. Coughing of a characteristic type is not uncommon.

Digestive disturbances:

The appetite is increased in the earlier stages, but with the increased appetite, there is a constant loss of weight and strength. In late stages, persistent nausea and gas eructation are common and vomiting is often seen. Diarrhoea is not infrequently seen.

Nervous and mental disturbances:

Apprehension and extreme nerv-

ousness are almost constant; excessive irritability is common. Advanced cases are extremely restless, and almost constantly fingering something, and seem unable to allow their hands to rest quietly for any length of time. Mentally, they are not quite up to their normal, and in very late stages, I have seen marked dilirium; some cases show great depression. Fine tremors of the fingers, varying from seven to ten per second are a constant symptom.

Muscular symptoms:

Weakness and extreme exhaustion, after any severe or continued effort is common. Cramps of the extremities or sudden attacks of weakness may be noted.

Metabolism:

In severe cases the loss of weight is rapid. This is due to rapid oxidization of the tissue and burning up of his own tissue protein. This is why basal metabolism as shown by the calorimeter is greatly increased. Estimates of basal metabolism is therefore of great value in differential diagnosis. These patients also also show an increased sensitiveness to injections of adenalin.

Differential Diagnosis

Neurasthenia:

Mild cases of hyperthyroidism very closely similate neurasthenia. In neuhasthenia, basal metabolism is not increased, and when the patient is put to rest, the pulse rapidly slows down to normal.

Pulmonary Tuberculosis:

Many early cases of pulmonary tuberculosis do not present very definite signs in the lungs. Tachycardia and exhaustion are the most pronounced symptoms. Basal metabolism and X-ray with repeated examinations will usually clear this up.

Neuro-Circulatory Asthenia or Irritable Heart:

This condition was frequently seen among the soldiers in the late war. It is usually found in individuals showing evidence of physical inferiority, especially if there has been any unusual mental or emotional strain. It may be found in persons who are physically above the standard, but they almost invariably give a history of some recent severe infection. The cardiac rate is very much increased, tremors of the fingers are constant, perspiration is free, and dermatographia is very pronounced. Absence of goiter and of ocular symptoms are the only clinical points of differentiation from hyperthyroidism. Many well known clinicians think there is a close relation between these conditions, but in the majority of cases, basal metabolism is not increased.

Paroxysmal Tachycardia:

These cases, an account of their rapid pulse rate, anxiety and extreme nervousness, may closely simulate hyperthryroidism. Careful history will show that the onsets are sudden and the return to normal is equally so. However, the fact must be borne in mind that hyperthyroidism is not infrequently complicated by paroxysmal tachcardia.

Focal Infection:

Focal infection may be confused with hyperthyroidism and it is very interesting to note how often these conditions are found together. In my small observation, every case either had focal infection or gave a good history of having had. Every case has either had chronic tonsilitis

or gave a history of repeated attacks of tonsilitis. If focal infection is present, especially in adolescence, there is a tendency to enlargement of the thyroid. When focal infection is plain, and there is doubt as to hyperthyroidism, the basal metabolism is a very satisfactory guide.

Pathology:

The pathology of the thyroid is too broad a subject to be considered here, but it is a well established fact that there is no constant pathology with hyperthyroidism.

Treatment

The treatment is extremely varied. Rest and diet are of the greatest importance, whether medical or surgical treatment is followed. Rest means not only rest in bed, but mental rest. This mental rest cannot be over-emphasized. Food is a very important factor. If metabolism is 100% plus, it is plain that the patient needs twice as much food as he would normally to maintain the body weight. Certain foods activate metabolism out of all proportion to others. These foods are proteins, fats and alcohols. These should be avoided and the diet should consist chiefly of carbohydrates. The appetite should be stimulated by every means.

Great claims are made regarding the value of both radium and X-ray treatment. While both very materially reduce the size of the goiter, it is not infrequent that the toxic symptoms remain. I have a case in mind that took radium treatment in Chicago at a fancy price and she was assured that her goiter was cured, but told that she had a weak heart and that her goiter had nothing to do with this. When I examined her, she had every symptom of hyper-thyroidism and a tachycardia of 150. Except the reduction in the size of the thyroid and the size of her bank roll, I could see no change. Injections of hot water, quinine and urea, etc., seem to be gradually falling into disuse. Crile invariably uses surgical treatment, but he adds to this a planned regime of rest and diet. He claims that all cases are operable, or may be made so by a short period of treatment. He claims that so-called hyper-thyroidism is an intracellular acidosis which is overcome by the normal acid-alkaline balance. This is accomplished by subcutaneous injections of from three to five thousand c. c. of normal saline, by digitalizing the heart, by blood transfusion and by rest.

Preliminary ligation is of great importance and almost unbelievable results are often seen. One case came to me weighing 95 pounds, tachycardia 160, extreme prostration and frequent gasping for breath, and every symptom of hyperthyroidism exaggerated. Her condition was such that it was not thought safe to attempt ligation until she had been at rest several days. Both superior thyroid arteries were ligated, using one-half of one per cent. Novacain and a week later she was sent home to rest. Six weeks after ligation she returned, her weight had increased thirty pounds, and very marked improvement in every symptom. Thyroidectomy was successfully performed under ether anaesthesia.

Another case absolutely unable to walk; weight 108 pounds; showing exaggerated symptoms of hyper-thyroidism; both superior thyroid arteries were ligated and she

was sent home a few days later to rest. Her improvement was rapid and three months later her weight was 155 and general condition much improved. She did not return for operation until about six months after ligation. Operation was performed under local anaesthesia. One year after operation her weight was 180. She felt well, and was doing her own work, and all symptoms of hyperthyroidism had disappeared. These cases of course are the most favorable, and I do not wish to give the impression that results are uniformly this good. One case that I ligated died a few hours later. This case was by far the most toxic patient I have ever seen. Hyperthyroidism had been marked for years, a huge goiter, which appeared in early childhood was present. The trachea was compressed, and there was a constant fight for breath, and excessive tenacious fluid was coughed up in large quantities. Nausea was almost constant, and vomiting frequent. Patient was not able to swallow any solid food. The voice had been affected for more than a year and it had been six weeks since she could speak above a whisper. At intervals dilirium was marked. Tachycardia varied from 150 to 180 and did not improve under rest in bed. As other cases showed very little, if any, reaction after ligation, I decided to try it, and had no trouble in the operation, and patient did not complain of pain, but before the operation was ended the pulse was over 200 and patient expired five hours later. My judgment in this case was poor, but I believe the case was hopeless before the ligation.

Indications for Thyroidectomy

Hyperthyroidism, if positively established, is sufficient indication for thyroidectomy. Unless diagnosed very early, it seems that every case would be safer if preliminary ligation were performed, as it is done practically without danger. Crile claims that the reaction is about the same as patient has on hospital admission. It is not necessary to take up your time describing the details of operation in ligation of thyroidectomy. Not infrequently, both the doctor and patient think when the goiter is removed and the patient able to go home, that she is well. The patient may be cured of the goiter, but not the effects of the goiter. The length of time that they should have rest and diet depends on the amount of cardiac degeneration. When in doubt, always give more rest. I would emphasize the importance of being satisfied with a partial operation, if patient shows marked evidence of shock. It is much more desirable to have a patient living with one lobe not removed, than to have one dead with both removed. In view of the fact that West Virginia stands high in the percentage of goiter, due to the wall of mountains between us and the sea, the West Virginia Medical Association should assist the Public Health Service in every way to adopt some one of the many practical methods of furnishing the proper amount of iodine to every school child in the state.

Discussion of Dr. H. H. Haynes' Paper

Dr. W. H. St. Clair, Bluefield:

You have taken me by surprise and I am sorry that I did not hear all of the paper. I think that he

certainly covered this subject in a most admirable way. I do not know of anything that to me is harder to handle than some of these cases of Exophthalmic Goitre. I believe that the Doctor is right, although there are some men now who are advocating not doing a preliminary ligation. I think it is a good way to test out your patient and see what they can stand. If they can stand the ligation, you can defer the operation a very much shorter time. In order to play safe, I have always let these patients get in as good condition as possible, and as he cited in his paper, they often take on to 30 to 50 pounds in a few months. Patients are not cured simply by ligation and they go on for a few years and often relapse. I had one patient that I did a ligation in first one upper thyroid. He had a terrible reaction. This patient never got in very good condition. He did go along and improve for awhile and then he would have a vomiting spell accompanied by diarrhea and sleeplessness and it seemed as if he was going to die. We succeeded in getting along with the thyroidectomy. He improved less from ligation than any that I have had anything to do with. One young lady was in bed and we felt that she was a good operative risk. We did a thyroidectomy and her pulse jumped up but fortunately she quieted down and I think she is going to make a good recovery. I hope the Doctor in closing the discussion will outline the instructions that he gives these patients after they are operated on. He emphasized in his paper after they are cured, but not regarding the danger. In closing, I would like for him to tell us what instructions he gives his patients.

Dr. Frank Lemoyne Hupp, Wheeling:

In 1913 a partial survey was made in this state including 11 counties and in those counties 13,836 school children were examined and there were 1,234 cases of goitre found or 9% of the children examined, in Huntington 50% of the girl pupils were affected and about the same proportion in the State of West Virginia, emphasizing in a general way the fact that goitre may be considered endemic in some parts of the United States.

The Greeks of early history administered the ash of burned sea sponges, not knowing this was rich in iodine. Coindet in 1820 first used it knowingly, while Baumann discovered in 1895 that iodine was a normal constituent of the thyroid gland. Dr. A. Crotti, one of the greatest experts in this line of work in America, gave a talk in Wheeling not long ago and was very firm in his conviction that iodine relieves and in many cases permanently relieves some of these cases, means that it bears a definite relation between the etiology and the means of treatment. The message that I would like to leave with you in this discussion is, that the last word has not been spoken with regard to the etiology.

McCarrison and Shepherd, we are told by Kimball, consider goitre a water born infection and suggest it may be from the colon group of bacteria.

The work of Marine, Lenhart and Kimball in this country and Klinger in Switzerland with the administration of sodium iodide in school children is most interesting, but un-

til the fundamental facts have been definitely established along etiologic lines, we who are on the firing lines must await the verdict from the research workers and their laboratories.

Dr. W. A. McQuillan, Charleston:

I don't think any subject appeals to this particular section more than this paper of Dr. Haynes. This State and Ohio seem to be terribly burdened with thyroid disturbances.

It is of particular interest to Dr. Hugh Thompson and myself. Last Summer it was our good fortune to have a coast trip from Newcastle, N. B., to Gaspe, P. Q., Canada. We saw in that neighborhood 15 or 20 physicians who reported that they did not have any cases of goitre, that the disease was practically unknown along that section of the Atlantic Coast, so rich is the water with iodides. Dr. Garrett of Montreal spends his summers at Gaspe and he referred me to Dr. Stokes of Toronto who has given this a great deal of study. Dr. Stokes refers to the Japs being a nation who are almost void of goitre. He attributes it to their being an island nation and eating sea foods to a great degree. The natives of Vancouver, B. C., Canada, have also a low percentage of goiter.

The absence of goiter among the people who live along the coast is marked. Dr. Kendall refers to this in his regular work.

Regarding the treatment of the thyroid with radium and electricity, it is, in my opinion, the greatest fake on earth. I have a patient in Charleston whose goiter was treated by radium in Chicago. She returned to Charleston a few weeks ago saying she was cured by radium. Shortly after her return she was seized with a chain of toxic symptoms. She is now being fed predigested foods with an ice cap to the stomach and heart to keep things quiet.

We checked up in the schools and found a very marked decrease in the size of the glands in the younger patients. The older the patient, the less effect the gland has on the use of the iodid. I would like to ask Dr. Haynes how long he keeps the treatment of iodids up before he operates. The ligation is certainly the conservative plan in the toxic variety.

I cannot help but be impressed after seeing with my own eyes the absence of goitre along the coast where patients at the sea level are able to thrive on a thyroid food, what it starves for in the interior of the country.

Dr. M. V. Godby, Charleston:

Sodium iodid was used in Switzerland 20 years ago for the treatment of goitre. Kocher was probably the first to call attention to this method of treatment. He recites one instance where 115 school children all became afflicted with goitre. The addition of sodium iodid caused a complete cure in most all of the cases. I was very much interested in the paper, especially as it relates to Exophthalmic Goitre. I doubt whether "Exophthalmic Goitre" is the proper term, I prefer Toxicity of the Thyroid as a better term.

McCarrison has done considerable work with the thyroid gland and I believe it has been proven conclusively that it is an infectious disease. He has shown that goitre is contracted from goats to man and

also from man to goats from drinking water. The danger is due to hyperthyroidism producing an endocrinous toxin affecting the heart muscles.

I felt like asking Dr. Moore a question; whether urticaria was due to toxemia of the tonsils, or due to an infection of the suprarenal glands, secondary to the tonsils which likewise produces hypersecretion of the pituitary. This is caused by synergizing of the other endocrines with the thyroid. Hyper thyroidism always produces excessive oxidation while hypothyroid we always have improper oxidation. However, the thyroid, as we know, is supposed to control several functions of the body. While in hyperthyroidism we have an increased output of the entire system and likewise we always have in extreme cases albuminuria. We nearly always have hyperthyroid. We nearly always have diarrhea. We have extreme nervousness. Likewise after removal of the thyroid, if it has progressed very far, it has naturally run itself to death. Then the thing that takes up the work from the thyroid is the pituitary. Thyroxin was worked out by Kendall and the deductions made by Plummer. I doubt the efficiency of the thyroid as it is in all probability not absorbed while thyroxin always efficacious as its absorption is almost a certainty.

Dr. Robert K. Buford, Charleston:

On reviewing the literature on the subject of Hyperthyroidism, one is immediately impressed with the great number of articles which have been written within the past few years. Very often the literature is so contradictory, that if we were to balance the views of the many observers, the result would be nil. This observation alone is sufficient to acquaint one with the fact that our scientific knowledge of Hyperthyroidism is yet very limited, and the last word on the subject has not been said.

We are indebted to Wilson and MacCarthy for a working clinical and pathological classification. They divide goitre according to their clinical and pathological relationship, into four groups: (1) Non-Hyperplastic Atoxic, (2) Non-Hyperplastic Toxic, (3) Hyperplastic Atoxic, (4) Hyperplastic Toxic. Plummer has divided goitre into Colloid, Adenoma, (non-toxic and toxic) and Exophthalmic types. We have adopted his classification for clinical reasons and find it very satisfactory.

These observers all find Hyperplasia a constant finding in Exophthalmic goitre. The blood pressure is increased in Adenoma with Hyperthyroidism, and normal in Exophthalmic goitre. We find Goetsch's Adrenalin Hypersentative Test to be of great diagnostic value, especially in differentiating from incipient pulmonary tuberculosis, and determining the safety period for operation.

There is still a wide diversion of opinion in the treatment of Exophthalmic goitre, but in the light of past experience and end results, partial thyroidectomy heads the list of therapeutic measures. We do a ligation of one superior thyroid artery or both, in extreme toxic cases, and wait from six weeks to two months time before doing a lobectomy or partial thyroidectomy.

Better results are obtained from ligation in Exophthalmic goitre than in Adenoma with Hyperthyroidism. Our experience with drugs and the X-ray have been very disappointing in Hyperthyroidism. We do not believe any case of Hyperthyroidism is ever an emergency one. I was an early disciple of bilateral resection, and do not hesitate to remove four-fifths of the entire gland. We have seen re-occurrences of Hyperthyroidism follow insufficient removal of diseased thyroid tissue. We have observed cases of Toxic goitre super-imposed on simple goitre following tonsilitis. In practically all of the cases of Exophthalmic goitre we have studied, we have found foci of infection, and have made it a routine to remove all focal infections before Thyroidectomy when possible.

These minor operations give a fair clinical index to the patient's operability. Clinical experience is worth more than any laboratory means in determining the operability of a patient suffering Hyperthyroidism.

Dr. W. J. Judy, Belleville:

This is a real live subject. You surgeons tell us general practitioners that you cannot operate until you get their pulse below 120.

Along the point of iodine medication, in a certain locality, (Reedsville, Ohio) where they all use cistern water which does not contain iodine, goitre is very prevalent. This goes to prove that iodine injection is an important factor in warding off this condition.

Dr. H. H. Haynes, Clarksburg:

As to the time that elapses between ligation and removal of the goitre, that depends on circumstances in each individual case. Where your patients can come back to you easily, I have found it more satisfactory to have them come back in a month or so and be examined to see how they are doing. If they are not doing well, put them in the hospital where you can do more for them than at home. In regard to ligation it will give you an index of what the patient will stand. Many a case can take a risk and get by with it that we cannot do here in the mountains. Probably by a little experience we could. Crile could do a case at Lakeside better than we could. They have the advantage of us in that way. They have men working together day by day. He uses local analgesia. His patient can talk to him during the greater part of the operation. Patient not entirely rational, but able to answer questions.

You may say that the patient is cured when the thyroidectomy is done. The patient is not well. It depends on the degree of injury that has been done to the individual as to how soon he will come back. I always instruct the patient to go home and wait until they are absolutely able to work before doing anything, and then go at it very leisurely and at any time that they get tired or nervous to slow up and call in the doctor and have an examination.

As to iodine, I don't think iodine is indicated in exophthalmic goitre. The immediate cause of goitre has not been definitely decided. Endemic goitre seems to be unquestionably iodine starvation. As to the secondary cause of goitre, so far nothing definite is known.

As to the work done in Switzer-

land, they are doing a great deal of work according to reports in the American Journal of Medical Science. Some observers worked in districts there with school children where they were as much as 100% goitre. The results have been so striking that the Swiss Goitre Commission has adopted a plan of treatment similar to ours and with practically the same results.

The infection theory has been pretty well exploded. It would be apparent in the overcrowding of fish hatcheries, etc., and it proved that the infection theory is certainly open to a lot of attacks and there is no question of an endemic goitre being largely controlled by supplying iodine. I do not think there is any place or any race that are down close to the sea that have any trouble with goitre, and practically every case where people are isolated as we are from the sea in such regions all over the world there seems to be endemic goitre.

REPORT OF TWO CASES OF HYPERTROPHIC PYLORIC STENOSIS

CLAUDE L. HOLLAND, M. D.
Fairmont, W. Va.

Case 1:—Baby, a male, age two months, four days—referred by Dr. B. F. Conaway on February 3rd.

F. H. Father living and well, Mother has active tuberculosis. He is third child, there are two other children living and well. He was born at full terms, natural delivery, and appeared normal at birth. Was not weighed but was well developed and well nourished.

P. H. On account of Mother's condition the breast was not given at any time. The first feedings were of Eagle Brand milk. This was changed to Horlick's Malted Milk. Later Mellin's Food and cow's milk were tried. The feedings for three weeks prior to examination had consisted of Eagle Brand Milk, 3 teaspoonfuls in water, three ounces at three hour intervals. This he had taken greedily.

P. I. Baby began regurgitating food soon after birth. Gradually this grew worse until the phenomena was that of vomiting, which quickly became projectile in character, and had continued up to the time of examination. At first the food would be vomited sometimes immediately after feeding, again vomiting would not take place until one or two hours had elapsed. Later vomiting took place almost immediately after feeding. The child had lost much weight, and bowel evacuations were obtained only by the use of enemas.

P. E. He was a bright-eyed, emaciated child. The mouth was closed, mucous membranes pale, muscles very flabby. There was no spasm or paralysis. His length was 22 inches, cir. head 14½ inches, cir. chest 12¾ inches. He weighed six pounds and two ounces. The head was round in shape, the fontanel was depressed. The pupils were large, equal and reacted to light. The nares were clear. The tongue dry with a thin white coat, the throat was normal. There was a slight general enlargement of the peripheral lymph nodes. The heart and lungs were normal. The skin was dry and lay in folds. The abdomen was somewhat tympanitic.

Lower border of liver was palpable 1½ cm. below the costal margin. The spleen was not felt.

A small movable mass was indistinctly palpable in the region of the pyloris. The child was given water from a bottle and the exposed abdomen observed. A visible wave of peristalsis was observed to arise in the left hypochondrium and travel transversely across the abdomen, sometimes two waves would be visible at the same time. Very soon the stomach contents was expelled with force. A diagnosis of Hypertrophic Stenosis of the Pyloris was made and operation advised. To this the parents demurred. It was decided to make a tentative trial of feeding with a thick cereal gruel. This was composed of skim milk, farina and cane sugar, boiled together for one hour, and given at four hour feedings, five feedings in twenty-four hours.

Feb. 5th—Weight 6 lbs. 2 oz. Takes food readily, and vomits only when water is given. Gave water and observel peristaltic waves as at first examination. In a few minutes vomiting, projectile in character, took place. Suggested that treatments be continued as above for some days longer, but warned against deferring operation until the child is too much weakened to survive the procedure.

Feb. 10th—Condition about the same.

Feb. 12th—Weight stationary. Has not gained and is vomiting. Operation decided upon.

Feb. 13th—Cook Hospital, service of Dr. E. P. Smith. After lavage of the stomach, the abdomen was opened under ether-oxygen anasthesia. A dense fibrous band of tissue surrounding the pylorus was disclosed, which almost obliterated the lumen of the canal. This was incised down to the mucosa and separated so that the mucous membrane herniated into the incision after the method of Rammstedt. No hemorrhage was encountered, so the gut was returned to the abdomen and the wound closed. Hyprdermoclysis of 5 cc normal salt solution was given at once. The patient rallied nicely. Procto-clysis of a 5% glucose and soda solution, 2 ounces was begun and repeated at three hour intervals. Two hours after operation, breast milk ½ ounce, given with a dropper was begun at two hour intervals with sterile water ½ ounce on the intervening hour. After twelve hours these liquids were increased to one ounce each.

Feb. 14th—Does not vomit but regurgitates some liquid. Temp. 100F, in the rectum. Appears very sick.

Feb. 15th—Supply of breast milk was unfortunately cut off. Was put on whey 3 ounces with one level tablespoonful of dextrose at 3 hour intervals. This was retained.

Feb. 16th — Temp. 98 3/5F, brighter, takes food well. No vomiting or regurgitation, condition very satisfactory. Food changed to skinned milk 12 ounces, sterile water 9 ounces with Dextrose 3 level tablespoonfuls, of which three three ounces was given at 3 hour intervals, 7 times in 24 hours.

Feb. 17th—Takes and retains food. Condition satisfactory. Treatment same.

Feb. 18th—Condition good, bowels move naturally. Acts hungry. Food changed to whole milk 12

ounces, lime water three ounces, barley water (1.50%) 9 ounces, of which seven feedings of three ounces each were given in 24 hours.

Feb. 19th—Doing well, was taken home from Hospital.

Feb. 21st—Seems very hungry. Amount of food increased to 3½ ounces, of the same formula.

Feb. 24th—Seen at office, wt. 6 lbs. 5 ounces. Takes food greedily, never seems satisfied, cries much, stool brought in was large, yellow, smooth, but rather offensive. Abdomen tympanitic, nurse reports much flatus. Food changed to whole milk 14 ounces, lime water 3 ounces, solution of "Karo Syrup" (50%) 4 ounces, barley water (3%) 7 ounces, of which 3½ ounces were given at 3 hour intervals, 7 feedings in 24 hours.

March 3rd—At office, wt. 7 lbs. 4 ouncse, doing fine. Is starting in 3 days for Los Angeles to reside.

Reports later were that the child continued to thrive.

Case 2—Baby S.—male, age 29 days, referred by Dr. J. S. Maloy, on April 29th.

F. H.—Father and Mother living and well. There had been no miscarriages. No history of tuberculosis or lues.

P. H. He was the only child, born at term after a protracted but not difficult labor. Appeared normal at birth, and is said to have weighed 7½ lbs. He was given the breast at 2 or 3 hour intervals, the mother having an abundance of milk. For three or four days before coming in Horlick's "Malted" Milk had been substituted.

P. I. About one week after birth the child began vomiting persistently. This had continued for three weeks. Vomiting took place as a rule immediately after feeding, only occasionally after an interval of from ½ to 2 hours. The vomiting was forcible in character.

P. E. He was a bright-eyed, emaciated child. The mouth was closed, skin and mucous membrane markedly pale. There was no spasm or paralysis. He weighed 5 lbs. 14 ounces. The head was normal, the fontanel sunken, pupils large, equal and reacted to light. Lymp nodes normal. Heart and lungs nrmal. Abdomen tympanitic. Liver normal in size. The spleen was not felt. The rectal temp. was 98 1/5F. He was allowed to nurse. When the stomach was filled a visible peristalis was observed in the epigastric region, traveling from left to right. After a few minutes the stomach contents was expelled with a gush, after which a tumor of the pylorus was definitely palpable. A diagnosis of hypertrophic stenosis of the pylorus was made and operation advised. The parents objected and took the child home. Next morning they returned and the baby was admitted to Cook Hospital in the service of Dr. Smith.

Because of the marked dehydration and greatly reduced condition the patient was not operated upon for 24 hours, during which time a continuous enteroclysis of 5% solution of glucose and soda was given after the method of Murphy.

May 1st—Under light ether-oxygen anaesthesia the abdomen was opened, and a dense myomatous ring, surrounding the pylorus, causing almost complete obstruction was found. This was incised after the

Felds-Rammstedt method. A slight hemorrhage occurred at the duodenal end of the incision which was controlled by two sutures of very fine, plain cat gut, and the abdomen was closed. There was but slight shock from the operation. The child rallied readily, and two hours later, breast milk in ½ ounce quantities given with a dropper at two hour intervals was begun. On the intervening hour sterile water in the same quantity was given in the same manner. Glucose and soda solution 5% was also given per rectum in 2 ounce quantities at intervals of three hours. Ten drops of whiskey was also given at intervals of three hours. Following operation the temperature rose rapidly until at 8 p. m. it reached 103 3/5F. It gradually declined, however, until by the evening of the next day it had touched normal. At this time the child had a convulsion. Following this there was a spastic condition of the arms and hands, especially the right, with the so called accouchers hand, as in tetany. The respirations were irregular, and the child looked like dissolution was imminent. 1/500 gr. of Atropine Sulph was given hypodermically at 7 p. m. and at 9 p. m. 30 cc. of whole blood was given by transfusion. The patient rallied after this, the temperature rose rapidly and at 1 a. m. was recorded at 103 F. It then began to decline and after 24 hours remained normal.

The course from this time on was uneventful. The tetanoid condition subsided gradually, and was entirely relieved by the fifth day. At this time also, he was able to begin taking the breast, but it was necessary to add small quantities of expressed breast milk from a bottle since the scales showed he did not nurse enough. He continued to regurgitate some liquid, but this had subsided by the end of the first week.

The Mother and baby were kept in the Hospital for one week more, during which time the feeding was confined to what the child was able to get from the breast. The scales showed this to be liberal in amount. He looked bright and took the breast readily, but gained very little in weight. The bowels moved naturally.

On May 14th he left the Hospital weighing 6 pounds 1½ ounces. The subsequent observations were made at my office.

May 20th—Wt. 6 lbs. 4 ounces. Took the breast well. Weighing before and after nursing showed that he had taken slightly more than 3 ounces. His gain is not satisfactory. The stools are good. At this time the administration of one level teaspoonful of Meads Dextri-Maltose No. 2, in one ounce of sterile water was ordered to be given shortly before nursing.

May 24th—The weight was 6 pounds 8 ounces.

May 31st—Weigh 6 pounds 12 ounces.

June 5th—Weigh 7 pounds 4 ounces.

June 12th—Weight 8 pounds 2 ounces.

June 19th, weight was 8 pounds 9 ounces. The mother says the baby acts very hungry all the time.

The baby was again weighed before and after feeding, and found to have gotten but two ounces. Because of inability to obtain a satisfactory cow's milk for complemental feeding, the child was given

"Deyco" 1½ level tablespoons—Dextri-Maltose No. 2² ½ teaspoonful in 2 ounces of water after each breast feeding.

June 26th—the weight was 9 pounds, and condition satisfactory.

July 10th—Weight 9 pounds 14 ounces, hungry, artificial food increased to Deyco 2 level tablespoonfuls, Dextri-Maltose 1 level teaspoonful, boiled water 2½ ounces after each breast feeding.

UNEXPLAINED CONSTITUTIONAL SYMPTOMS CAUSED BY A FOREIGN BODY IN THE TISSUES.

MAX J. SCHROEDER, M. D., New York.
Medical Record, January 14, 1922, p. 63.

This is a case history of a child fifteen months old who swallowed several safety pins linked together. Repeated gastro-intestinal roentgenograms failed to reveal the presence of any foreign body and finally the child was dismissed without diagnosis.

From that time on the child, who had formerly always been healthy and rosy, grew sleepless, appetite failed, an obnoxious breath developed, and about fourteen months from the time the pins had been swallowed she became sick and the physician called pronounced it to be a case of anterior poliomyelitis.

A short time after this child came under the care of the author, and upon the examination of the oral cavity a slight elevation of the posteriar wall of the pharnyx a little above the natural position of the soft palate was noted. Upon closer scrutiny a glistening object was noticed, and upon incision of the elevation three medium sized safety pins, rusty and greenish in color were withdrawn and followed by a rush of greenish colored pus. The cavity was given the ordinary care and healed within about three weeks and the child became once more normal in appearance and health.

The point is made that while the pins may have been swallowed in the first case, that they later, perhaps in vomiting, were lodged in the pharnyx and that in all cases of search for foreign bodies supposedly swallowed it is necessary to x-ray the head as well as the gastro-intestinal tract if the body is not first located in this tract. The author believes that the anterior-poliomyelitis arose from the continguity of the infection, or, at least, that it is plausible to believe that it did.—Am. Jr. Radiology.

THE WEST VIRGINIA MEDICAL JOURNAL

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SIXTH DISTRICT: J. W. Moore, Charleston, one-year term: R. H. Dunn, Charleston, two-year term.

THE TRUTH ABOUT WEST VIRGINIA

The members of our profession in this State are so busily engaged in the labors pertaining to healing the sick, that we feel sure that they have not had time to discover just what reputation has gone forth as to our Commonwealth.

The condition of affairs has reached such an acute state, that it has become necessary for the public spirited citizens to organize The West Virginia Publicity Commission.

We, who have been born and raised here, stand aghast when we are told by friends and acquaintances beyond our borders as to how uncivilized we are,—that we are barbarians with blood feuds as a part of our daily existence. To judge from the lurid description published about us in the lay press of the large cities, particularly those in the East, we are all the various kinds of heathen imaginable. So far as I have been able to discover we have not, as yet, been accused of cannibalism, or the eating of our

enemies' hearts. This has been, I am sure, an oversight on the part of special feature writers sent out to write us up.

Just what has been responsible for this unsavory reputation is a question, yet the fact remains that a wrong impression in regard to West Virginia has been created. One cannot, if he is a citizen of the State and knows the true conditions, but feel that this has been wilfully and maliciously planned and executed.

The lawlessness of our citizens is harped upon and our "Armed March" thrown in our teeth. They forget the Herrin massacre, the bomb explosion in Wall Street, and the lawlessness of Boston during their police strike. But recently another bloody battle was fought in one of our Counties, where the Sheriff and several deputies gave their lives in the performance of their sworn duties. We presume that this was also given as but another example of our lawlessness, and no mention made of the fact that the band of "killers" was organized in another State, and marched within our borders to commit crime. The World War was lighted by a much more insignificant match than this, yet we did not hold our sister state to blame because she harbored such men in the name of citizens. To live up to our reputation we should have immediately organized and invaded.

The following facts about our State are given in order that the members of our profession have information to give when our detractors get geared into high with their mufflers wide open, and all their cylinders hitting. To us, who know, they sound like wind-broken two cylinder motors. It's only outside of the State that they fool people into thinking they are "eights" or even "Liberty Twelves."

Facts About West Virginia

Area, Square Miles 24,022; 15,274,080 acres.

Population, native white	1,315,321
Foreign born, 4%	61,906
Colored	86,345
Indians and others	121
Total Population	1,463,701

Deepest well in the world near Fairmont.

Largest stogie factory in the world at Wheeling.

Largest patent medicine factory in the world at Wheeling.

Largest axe factory in the world at Charleston.

Largest sheet glass factory in the world at Charleston.

Largest sanitary pottery in the United States at Mannington.

More people own their own homes per capita than any State in the Union, 1910 census.

Government census shows that West Virginia has greater percentage of native born population than any other State in the Union.

Charleston has more wealth per capita than any city in the U. S.

West Virginia has more coal than any State in the Union.

Unmined coal 160,000,000,000 tons

At our present rate of coal production it will take nearly 2,000 years to exhaust our supply.

Second State in production of coal in the Union, Pennsylvania first.

Best smokeless coal to be found in the world.

Best bi-product coal to be found

in the world.

Coal area estimated at 9,500 sq. miles equal to the combined coal area of Europe including Russia.

West Virginia is now producing about 60% more coal than was mined in the U. S. in 1880.

Forty-nine of the 55 Counties are underlaid with coal.

West Virginia is the heart of the greatest coal field in the world, the Appalachian.

There are 29 different seams mined in a commercial way.

Remember, civic pride is a virtue and a West Virginian will talk West Virginia after he is dead.

THE CHEMICAL FOUNDATION AND AMERICAN CHEMISTRY

Recently most of us have noticed in the lay press that the President has ordered the return of all foreign patents by the Chemical Foundation to the Alien-property Custodian.

How many of our members have given this matter a thought? How many realize just what it means? How many know what the Chemical Foundation really is? There are none of us but remember the condition of affairs, when, during the late war, it became impossible to to secure chemicals, certain drugs, dyes, etc., from Germany. We were simply astounded that the United States was so dependent upon that Nation for things which were absolute essentials. There was probably no one thing which awakened us to the fact that Germany's aim was to throttle the World, more than did this.

A very skillfully manipulated propaganda had given us, and the rest of the world an idea that Germany alone could produce these articles. Not only had the Germans taken out patents covering the process of manufacture, to prevent production here, but in many instances the products as well, that we might be prevented from profiting from the development of the dye industry in other countries. All of us remember what happened in regard to arsphenamine and neo-arsphenamine alone, to say nothing of novocaine and a long list of other therapeutic agents supplied at that time by German manufacturers alone. We remember the price asked for these even before the war. We have but to compare the present price of these same American produced drugs, to say nothing of their increased efficiency, to realize the gain to our profession only.

As to the Chemical Foundation itself, it was organized to encourage the chemical industry in the United States, and not for profit, and as such was incorporated. "It was authorized to issue licenses to competent, equipped and patriotic individuals, firms or corporations on such of these patents as might be used in the promotion of American industry, or for use by the medical profession. All surplus above 6% on the capital actually invested, received from license fees by the Foundation to be expended for research and the encouragement of the chemical industry."

It is now proposed to take the patents away from the Chemical Foundation and return them to the Alien-property Custodian, and eventually back to the Germans.

One has visions of arsphenamine at $3.50 per dose and not so good,

after the German chemical manufacturers have again gained control of the chemical industry.

The time to find out just what will be the attitude of our Congressmen and one Senator is now. Write to the candidates in your District and to the candidates for the Senate and find out just how they stand on this question. It is an important one not only to our profession, but to the whole people of our country.

STATE AND GENERAL NEWS

FOURTH DISTRICT NEWS

On July 20 the Fayette and Raleight County Societies held a joint meeting at Beckley. The visitors present unanimously declared this the best meeting of a local society ever held in West Virginia. A hundred and forty-six physicians from Southern West Virginia and adjoining States were present, and the profession of the two counties did themselves proud. The clinics and discussions were conducted at the Beckley Hospital.

The Beckley Rotary Club gave a luncheon at noon at the Beckley Hotel Annex, at which a program devoted to Public Health was given. The Rotarians of Beckley are directing their efforts toward securing a full-time health officer for Raleigh County. Short talks were made on the value of a proper health administration by the following gentlemen: Dr. C. C. Coleman of Richmond, Dr. Douglas Vanderhoof of Richmond, Dr. J. A. Stucky of Lexington, Dr. E. Otis Smith of Cincinnati, Dr. W. S. Robertson of Charleston and Dr. C. M. Hawes of Huntington.

At one p. m. the program of clinics began. The Surgical Clinics were conducted by Doctors C. C. Coleman and A. M. Willis of Richmond, Virginia, with whom were associated Doctors J. E. Cannady and G. A. McQueen of Charleston and R. J. Wilkinson of Huntington. The cases demonstrated consisted of harelip, torticollis, ankylosis of the elbow, deformity of the chest, malignancy of the thyroid, cholecystitis, depressed fracture of the skull and tumor of the breast. The Medical Clinic which was conducted at the same time was in charge of Dr. Douglas Vanderhoof of Richmond, with Doctors R. D. Roller, Jr., G. H. Barksdale, and H. L. Robertson of Charleston assisting. The cases shown consisted of chorea, bronchial asthma, myocarditis, paralysis agitans, aortic stenosis, auricular fibrillation, mitral regurgitation, syphilitic heart disease and hyperthyroidism.

At three o'clock the Genito-Urinary Clinic was opened by Dr. E. Otis Smith of Cincinnati, assisted by Doctors R. M. Bobbitt of Huntington and W. S. Robertson of Charleston. The cases were: cancer of the bladder, prostatic hypertrophy, chronic cystitis, and several interesting dermatological cases.

The Eye, Ear, Nose and Throat Clinic was conducted between three and five. Dr. J. A. Stucky of Lexington, Ky., was in charge and was assisted by the redoubtable Dr. C. M. Hawes of Huntington. The conditions shown were: scleritis, traumatic eyes, glaucoma, cataract, phlyctenular keratitis, parenchymatous keratitis, albuminuric retinitis, and enlarged turbinates.

At five o'clock the profession of Beckley gave the visitors an auto-

mobile ride over that splendid little city, impressing the newcomers with the wonderful growth and community spirit of the metropolis of Raleigh County. At six-thirty a splendid dinner was served by the Beckley Hospital and ample justice was done, especially to the fried chicken. This delicacy was served in such quantities and and such style as to make the visitors believe that Beckley is accustomed to entertaining Methodist preachers in droves.

At seven-thirty the evening program was begun. Dr. C. M. Hawes of Huntington was Toastmaster and his witticisms added much to the pleasantries of the occasion.

The evening program was as follows:

"Some Practical Points in Urological Diagnoses"—Dr. E. Otis Smith, Cincinnati, Ohio.

Discussion—Dr. R. M. Bobbitt, Huntington, W. Va., Dr. W. S. Robertson, Charleston, W. Va.

"The Surgical Treatment of Certain Types of Facial Pain"—Dr. C. C. Coleman, Richmond, Virginia.

Discussion—Dr. G. A. McQueen, Charleston, W. Va., Dr. R. J. Wilkinson, Huntington, W. Va.

"The Patient Who Suffers From Indigestion"—Dr. Douglas Vanderhoof, Richmond, Va.

Discussion—Dr. G. H. Barksdale, Charleston, W. Va., Dr. R. D. Roller, Jr., Charleston, W. Va.

"The Avoidance of Shock in Diffuse Peritonitis"—Dr. A. M. Willis, Richmond, Virginia.

Discussion—Dr. J. E. Cannady, Charleston, W. Va.

"Some Practical Points for General Practitioner and Specialist"—Dr. J. A. Stucky, Lexington, Ky.

Discussion—Dr. C. M. Hawes, Huntington, W. Va.

"Health Problems in West Virginia"—Dr. W. T. Henshaw, State Health Commissioner, Charleston, W. Va.

"Multum in Parvo"—Dr. Sam Holroyd, Athens, W. Va.

Adjournment.

The meeting broke up at midnight and to those of us who had that day visited Beckley for the first time, memories of our introduction to the city on the hilltops will always linger fondly. Instruction, gaity, good fellowship, good food, "an everything" combined to make this one of the most pleasant days we have ever spent. We feel that this is an index to what they will do for us when the State Association meets there next May, and we trust the membership of our profession at large in the state will be on hand to enjoy the good things in store in the county far famed because of its glades and "Cousin Abe" Lilly.

* * *

At the recent meeting of the Fayette and Raleigh County Societies at Beckley, July 20, those present who are alumni of the Medical College of Virginia met and organized the Alumni Society of the Medical College of Virginia in Southern West Virginia. There are one hundred and twenty-one medical alumni of this institution in Southern West Virginia of whom twenty-six were present at the organization meeting. Alumni of the University College of Medicine and the Medical College of the State of North Carolina, which institutions were some years ago merged with the Medical College of Virginia, are admitted on equal terms with graduates of the Old School. The follow-

ing officers were chosen: Dr. John E. Cannady, Charleston, a graduate of the University College of Medicine, President; Dr. William R. Laird, Jr., Montgomery, graduate of the combined schools, Vice-President; Dr. Walter E. Vest, Huntington, a graduate of the Old Medical College of Virginia, Secretary. Talks were made by several of the alumni present and the following resolution was unanimously adopted:

Whereas, it is the tendency in modern medical education for medical schools to be affiliated with universities or other literary institutions, and;

Whereas, the Medical College of Virginia does not now have such an affiliation.

Therefore, be it resolved that the Alumni of the Medical College of Virginia in Southern West Virginia heartily endorse the efforts of the General Alumni Association directed towards such an affiliation.

Those present pledged themselves to keep in close touch with the Medical College of Virginia and to further its interests as far as possible. During the discussion it was brought out that this was the only medical school in the South which did not close its doors during the war between the States and was thus a supply house for surgeons in the Confederate Army. This fact makes it the oldest medical college in the South with a continuous existence. The next meeting of the Alumni Association will be held in Beckley during the meeting of the State Association in May.

Dr. J. H. Rowsey of Huntington, who has been suffering from carcinoma for several months following diverticulitis of the sigmoid, died at his residence August the third. Full necrology will follow in our next issue.

Dr. G. S. Hartley of Clifton Forge, Virginia, was a recent visitor in Huntington.

Dr. Clifford H. Fowlkes of Richmond, Virginia, has been visiting Dr. C. M. Hawes for the past two weeks.

The Chief of Police of Huntington has requested all Huntington physicians, through the Cabell County Medical Society, to display on the radiators of their cars the official automobile emblem of the American Medical Association. At a recent meeting of the Cabell County Society the suggestion was enthusiastically received, and the members present pledged themselves to comply with the Chief's request. This is in line with action recently taken by the police departments of a number of other progressive cities.

The many friends of Dr. R. H. Pepper, who has been in very poor health for the past year, will be delighted to know that he has completely recovered and has re-opened his office in the Emmons Apartments, Huntington.

Dr. and Mrs. Fred E. Brammer and two children motored from Cincinnati to Huntington, W. Va., where they will reside. Dr. Brammer will establish his practice with Dr. Earl B. Gerlach, who is at the head of the city health department of that city. Dr. Brammer has spent the past year as a resident physician in one of the Cincinnati hospitals.

Dr. I. Clay Hicks and family of Fifth avenue are spending the next ten days at Old Sweet Springs. His

patients will be cared for by his associate physicians while away.

Dr. T. W. Moore and Dr. Wm. F. Beckner announce the removal of their office and hospital to 1050 Fifth avenue, Huntington, W. Va. Practice limited to Opthalmology and Oto-Laryngology.

The following anonuncements have been received: Dr. and Mrs. Edgar Estes Noel anonunce the marriage of their daughter Mary Virginia to Dr. Andrew Bryan Evans, Tuesday, July 25, nineteen hundred and twenty-two, Huntington, West Virginia. Enclosed cards read: At home after August 1, at 117 C street northeast, Washington, D. C.

Dr. Bruce Clark has moved from Pulaski County, Va., to Winifrede, W. Va.

Dr. E. S. Lester of Witt, Va., has been appointed an examining physician by the Norfolk and Western Railway, and has moved to Bluefield, W. Va.

Harvey Hichman Pettry, Colcord, W. Va.; Maryland Medical College, Baltimore, 1905, died, June 20, aged 53, from gunshot wounds received when a pistol carried in his holster accidently exploded.

W. E. VEST.

Princeton, W. Va., July 22, 1922.

Dear Doctor:

You are invited to attend the Clinic to be held at the Princeton Hospital on Thursday July 27, 1922, from 1:30 p. m. to 6 p. m.

We expect to have Dr. Garland Sherill, Professor of Surgery of the University of Louisville with us on that day. We expect to have a medical man present but are unable to say at this time who it will be, as Dr. William Jenkins of Louisville, Kentucky, that we had intended having present on that day is unable to attend.

A banquet will be given to the visiting Doctors on the lawn of the Princeton Hospital Nurses' Home, at 6:30 p. m. The Mercer County Medical Society will convene in the Nurses' Home at 8 p. m.

Enclosed you will find a program for the afternoon. The program may be modified some on the day of the meeting.

Make your preparations now to come as we are expecting everyone to have a good time.

Yours Fratrenaly,
W. H. WALLINGFORD.

Program

We expect to have the following cases present at the Clinic, and to undergo the operations indicated:

1st. Club Foot.

2nd. Unilateral Congenital Dislocation of the Hip.

3rd. Two Gall Bladder Cases.

4th. Vaginal Hysterectomy.

5th. Caesarean Section (local anesthesia).

6th. Tonsils and Adenoids.

We have the following cases for demonstration:

Stricture of the Esophagus, following the drinking of lye.

Bilateral Congenital Dislocation of the Hips.

Stone in the Common Duct.

Partial Obstruction following Gastro-enterostromy for Duodenal Ulcer.

Peduncleated Lipoma of the Shoulder, weight 16 lbs.

Diabetic Case.

Persistent Eczema.

Nephritis in boy.

Deep Abscess of the Abdominal Wall.

Stone in the Kidney.

Sarcoma of Breast.

Exophthalmic Goiter with Heart Lesion.

Cancer of Stomach.

Mrs. M. S. Duling will demonstrate Gas Oxygen Anesthesia.

Mrs. N. McIntosh Noel will demonstrate X-Ray Pictures.

MEDICINE AND SURGERY

URETERAL OBSTRUCTION

Failure to recognize ureteral obstruction, K. I. Sanes, Pittsburgh (Journal A. M. A., Feb. 18, 1922), asserts is a frequent cause of unnecessary operation. Ureteral obstruction, though commonly encountered, is frequently overlooked; its disturbances are misinterpreted and improperly treated. He cites three illustrative cases. One patient, aged 21, had been subject to attacks of pain in the right lumbar region, radiating to the front of the abdomen and bladder. No urinary disturbances accompanied the attacks. For these attacks an appendectomy had been performed. The stump of the appendix left from the previous operation was removed later; a plastic operation for Lane's kink was done, and two operations for "obstructing adhesions." All of these operations failed to give relief. Exploration of the right ureter disclosed a stricture above the right ureteral meatus. Another patient, aged 25, for nine years had been suffering from a constant dull pain in the right lumbar region, with frequent acute excerbations requiring morphin. The pain, when severe, radiated to the right iliac fossa and down the thigh. She complained of frequent urination, nocturia and, at times, hematuria. For this an appendectomy, a right salpingo-oophorectomy, and an operation for nephrolithiasas was done. Her condition remained unchanged, except for added chills and fever. Repeated catheterization of the right ureter demonstrated an obstruction above the ureteral ostium. A pyonephrosis was also present. In the third patient a perineorrhaphy, a trachelorrhaphy, uterus fixation and appendectomy were performed. A right ureteronephrectomy confirmed the diagnosis of an obstructing ureteral calculus with pyonephrosis. Sanes urges more care in the examination of cases. Such an investigation requires a great deal of effort. It demands a carefully taken history, a complete urinalysis, an examination of the abdominal and pelvic organs, cystoscopic inspection, catheterization of one or both kidneys and a roentgen-ray study not only of the urinary tract, but not infrequently also of such abdominal organs as the gall-bladder, colon, stomach and duodenum. Such a study is time-consuming and expensive, and requires close cooperation between the cystoscopic, pathologic and roentgenologic departments. But the difficulties of early diagnosis of ureteral obstruction are so great and the consequences of the diagnostic errors are so serious that no measures, however difficult and unpleasant, should be set aside if they are found essential to the clearing up of the diagnosis of ureteral obstruction.

CORPUS LUTEUM EXTRACT IN THE TREATMENT OF THE VOMITING OF PREGNANCY

Of forty-nine cases of vomiting

of pregnancy discussed by E. L. King, New Orleans (Journal A. M. A., Feb. 18, 1922), twelve were treated with extract of corpus luteum. Ten of these received corpus luteum only, while two received ovarian extract also. Nine were treated with ovarian extract alone. Twenty-eight patients received the usual treatment of sedatives, gastric lavage, colonic irrigations of sodium bicarbonate solution, forced fluids, etc.; two of this group were also given horse serium, with negative results. Five patients died. Of these, one aborted spontaneously and died soon after; one was aborted by vaginal hysterotomy; abortion by catheter was unsuccessfully attempted in one case; one patient treated along conservative lines died undelivered; the other patient received thirty-six doses of corpus luteum by mouth, twenty-one doses of ovarian extract by mouth, and fluids, sedatives, etc., in addition. Two of these five patients were given corpus luteum; the other three did not receive this treatment. Of the twelve cases in which corpus luteum was given, five were of the mild form, and were all cured. In four cases the results were not satisfactory, and the treatment was changed to sedatives, drips, etc., with steady improvement and eventual cure. One patient received twenty-six doses of corpus luteum extract intramuscularly and sixty-seven doses of ovarian extract by mouth; also drips, morphin, bromids, etc., and was finally cured. Another patient received corpus luteum extract, 4 grains (0.26 gm), orally, six doses; then "desiccated ovary" by mouth for six doses; then corpus luteum extract by mouth three times a day for five days; also fluids, drips, sedatives ,etc. This patient had a positive Wassermann reaction and some physical signs suggestive of pulmonary tuberculosis, but the sputum was negative. She died undelivered. The twelfth patient received five doses of ovarian extract, then six doses of extract corpus luteum, intramuscularly, and was discharged improved. She returned in three weeks, and was given nine doses of ovarian extract, followed by seven doses of corpus luteum extract. She grew steadily worse, and abortion was attempted by the use of a catheter. She died undelivered that night.

Nine cases were treated by ovarian extract alone, given orally in 5 grain (0.324 gm.) tablets. The patients recovered; but there was no conclusive evidence that the ovarian extract was of any value whatever. Of twenty-eight cases treated by sedatives, drips, etc., three patients died; one undelivered, one shortly after spontaneous abortion, and one several hours after evacuation of the uterus by vaginal hysterotomy. King does not share Hirst's enthusiasm over the corpus luteum treatment. It is his opinion that the best results are obtained by the use of sedatives, colonic irrigations of sodium bicarbonate solution, forced fluids, etc. Therapeutic abortion should not be too long delayed in refractory cases. Pinard's dictum to abort when the pulse is persistently above 100, while unduly radical, is a good guide, especially when considered in connection with the general condition of the patient and the laboratory studies of the blood and of the urine.

THE RELATIVE VALUE OF RADIUM AND X-RAYS IN CANCER THERAPY

ISAAC LEVIN, M. D.
Clinical Professor of Cancer Research, New York University and Bellevue Hospital Medical College, New York City. The Urologic and Cutaneous Review, January, 1922, p. 5.

Surgery, radium and x-ray therapy constitute today the total of all known methods of combating cancer. Over-enthusiasm or unwarranted pessimism concerning any one form of treatment interferes with true scientific progress and is to be deplored and discouraged. To find the true evaluation of each method and perhaps a correlation of them is of the greatest import. After thirty-five years participation in the work the author states that while the cancer victim today has undeniably far greater chances of recovery than ever before, yet undue enthusiasm does only harm to his cause. In cancer therapy immediate results must always be discounted a few years later.

Surgery, while meeting with some degree of success, has not solved the cancer problem. A comparative analysis of vital statistics and cancer statistics shows that in the hands of different surgeons the highest percentage of all cancer cases of a community which can be cured by surgical treatment is 15.25 percent and the lowest 4.15 per cent, or in all probably less than ten per cent.

From a study of the mechanism of the action of radiation in radiotherapy it is evident that radiotherapy is theoretically superior to surgery, inasmuch as it may destroy or inhibit malignant tumor tissue without injury or removal of the adjacent normal tissues. This surgery cannot do.

Much has been done by x-ray alone and much by radium alone. The advantage of radium over x-ray lies in the fact that the same local effect can be obtained by it without the general reaction so frequent and so severe in x-ray therapy.

The quotient of the depth dosage in roentgenotherapy can only be improved by the addition of the secondary and scattered radiations, which form within the tissues. The larger the portal of entry the greater the quantity of the secondary radiations, and to obtain the necessary quality in the depth a large field must be used.

The newest apparatus and methods make it possible to send a certain fairly well developed quantity of radiations into deeply seated malignant tumors. Nevertheless a great many of the deductions made by the originators of these methods are too sweeping and do not bear scientific, biological, and clinical analysis. Biological behavior of a cell cannot be translated into an arithmetical equation and certain assertions as to cure are premature.

From a clinical survey it is conconcluded that "though the newest methods of x-ray therapy represent great progress and must supersede all the previous methods, x-ray therapy alone is not a correct method of cancer therapy and is undoubtedly not as efficient as surgery alone or radium therapy alone."

Both radium and the x-ray exert a truly specific selective action on cancer tissue and biologically they present the nearest approach to a

specific therapeutic measure.. The limitations of both agents are due mainly to the size and location of the tumors. Further progress in cancer therapy must be looked for in the development of correct methods of combination of the three therapeutic measures.—Am. Jr. of Radiology.

PERINAL ABSCESS COMMUNICATING WITH URETHRA IN BULBOMEMBRANOUS PORTION.

Interest in the case cited by Clinton K. Smith, Kansas City, Mo., (Journal A. M. A., May 20, 1922), lay principally in the fact that he was able to visualize by a roentgenoram the urethral outline and the course taken by the abscess in its progress forward under Colles' fascia, which is identical with that taken by extravasating urine when rupture of the urethra occurs in the perineal portion. Abscess of this type occasionally occurs back of a urethral stricture, and is often complicated by extravasation of urine due to communicating slough into the urethra, the urine taking the line of least resistance, which is into the perineum rather than through the stricture. In this particular case this condition was not present, as there was at no time any urine outside the urethra, and the patient was passing urine by the urethra at the time the roentgenogram was made, which would indicate that the line of least resistance was through the urethra and not into the abscess cavity, and that the communication with the urethra was anterior to the cut-off muscle, the action of which prevented the bromid solution from passing into the bladder, thus diverting it into the cavity outside the urethra. The abscess probably began as an infection of a follicle of the bulb, or of Cowper's gland.

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DIGITALIS THERAPY

Read at Annual Meeting W. Va. Medical Assn., Huntington, May, 1922.

By G. H. BARKSDALE, M. D., Charleston.

I have chosen to summarize today some of the recent views on digitalis therapy because there are many who are inclined to discredit the drug, they having neither derived the brilliant nor constant therapeutic results that they had anticipated. There are others who are using the drug daily with a feeling of uncertainty as to dosage, indications, evidence of digitalization, etc. Undoubtedly a broader knowledge of the uses of this drug is needed, it is on this subject that I wish to dwell in this discussion.

For a proper conception of the effects of digitalis on the body complex, it may not be amiss to review the physiologic effect of the drug, as undoubtedly certain properties have been ascribed to the drug which it does not possess. Its action may be described briefly as follows:

1.—It increases the force of the cardiac systole, as a result, there is an alteration in the distribution of the blood and its rate of flow. This is probably due mainly to a direct action on the myocardium, as experiments on the isolated heart of the cat have disclosed. (Its site of action in producing this effect may be determined by administering a large dose of atropine to an animal to eliminate vagus control and a dose of apocodeine to cut off the accelerators. All influences through the nervous system are thus removed but the administration of digitalis still results in striking increase in contractility and tonicity. It must therefore, stimulate the muscle itself.)

2.—It slows the heart mainly by lengthening the diastolic interval. This is primarily effected by its action on the vagus mechanism, probably mainly centrally, though it has been definitely proved that this action is somewhat effected through

its action on the auriculo-ventricular bundle, as evidenced by the ability of the drug to produce heart-block.

3.—It increases the volume of blood expelled by each systole, this however would naturally follow from which has been stated above.

As a result of these influences an excited, overworked myocardium is retarded, its nutrition improved, its power augmented, its diastole prolonged, the result being that a ventricle filled to the maximum throws its contents into a sluggish arterial stream, cyanosis disappears, engorgement of viscera is relieved and oedema disappears. The drug contrary to the old teaching, does not produce diuresis save through its improvement in poor renal circulation, the increase in urine following the administration of the drug is entirely dependent upon the amount of fluid in the tissues, further it is the consensus of opinion among students of the circulatory system that in physiologic doses, digitalis does not cause constriction of the arteries in a measureable degree.—(Bastedo.) Mackenzie states that contrary to expectation, blood pressure is raised only in exceptional cases even when the drug is repeatedly pushed until full physiologic action is apparent and even when the patient is evidently much benefitted by the drug, on the contrary there are a number of cases reported where, during a progressive improvement in a fibrillating heart, blood pressure has fallen materially, much to the relief of the patient.

Concerning the use of the drug, one writer has stated that digitalis has been prescribed in a rule of the thumb fashion whenever a cardiac abnormality was detected, the same being taken as an indication for the use of digitalis, as it was given in every case with no accurate observation as to the kind of case in which benefit accrued from its use, its administration was surrounded by so much confusion that its useless on the one hand and its usefulness on the other, were not clearly recognized, so much so indeed, that its full beneficial effect in the cases where it was of use was never fully obtained.

It may be stated definitely that digitalis is indicated only in cases in which there is evidence of failure of cardiac compensation. This recalls to our minds the brilliant observations of Withering, whose work on digitalis in 1785 described most graphically the dropsical, cyanotic cardiac, stating that here relief may follow in a kindly manner, fortunately at least 60% (Lewis) of those admitted to hospitals with heart disease, develop a fibrillating heart. It is this condition above all others that almost ideal effect may follow, however, it must be added that in each recurrent break of compensation the efficacy of the drug becomes less, this being especially true when the break comes late in life and in an individual who has suffered general degenerative changes in the circulatory system. Articular flutter, a less common condition than its near cousin, auricular fibrillation, responds most favorably to the intensive administration of digitalis. In simple dilatation where the muscle has lost tone and becomes abnormally relaxed, with contractions weakened, from other than a toxic cause, the drug may be of benefit. There has been much discussion as

to the expediency of giving digitalis in aortic regurgitation, the moot point being whether it was wise to prolong diastole by slowing the heart.

Mackenzie has pointed out the fallacy of such discussion stating, "None seemed aware that digitalis does not slow the heart in aortic regurgitation, at all events, I have pushed the drug until I obtained evidence of its physiological effect by vomiting with no slowing of the rate." Withering, in his classic work, before mentioned, stated that the drug was of little or no value in florid skin, tense muscle and of a cordy regular pulse. However, the drug is at times apparently helpful in these cases, probably through its salutory effect on the myocordium through improving its circulation.

To turn to conditions in which the drug is either harmful or of no value, from a physiologic standpoint, one at first thinks of heart-block, hence, it is irrational to depress the auriculo-ventricular bundle, a derangement of which having brought about the condition from which the patient is suffering. In sinus arythmia it is useless or probably harmful. In paroxysmal tachycardia, no efficacy is to be expected save in prolonged attacks where strengthening of a dilated or otherwise fatigued myocordium may be obtained. It is with many of us a routine to employ the drug in failing circulation associated with toxemias of all varieties, notwithstanding the doubt if anyone present has truly felt convinced that any benefit has ensued. I can recall when an interne that instructions in pneumonia were to push digitalis until the pulmonic second equalled the aortic second. On this point Bastedo states, "In these cases in which we desire and might expect so much that we often meet with disappointment, at times the drug seems utterly lacking in power to check the rate or add to the strength of the heart." Eggleston states as follows: "There is one class of patients in which digitalis would seem to be indicated but in which its use unfortunately is of little or no value, this includes those whose hearts are showing signs of failure in response to the effects of an acute intoxication as in tuberculosis, pneumonia and other acute infections, and in cases of exophthalmic goitre. The evidence on this point seems so conclusive as not to admit of discussion as to its validity." Mackenzie—"Digitalis is often used when patients are dying from some grave affection, as pneumonia, as a last resort probably more for the purpose of doing something than with expectations of great benefit. I have never seen any good follow the administration of digitalis in acute febrile states."

These observers seem agreed that the factors exciting the heart such as high temperature, toxins, or the invasion of the heart by specific organisms exert an influence over the heart which digitalis cannot overcome. This point has been stressed because one cannot but feel that often truly helpful measures are neglected because reliance is placed in a drug which has no merit in this capacity. In chronic myocarditis and acute endocarditis, the drug has no place for reasons that have been discussed.

Pardee, working with Eggleston and others, has established the fol-

lowing rule for prompt digitalization of patients who have received no digitalis within the preceding ten days. The amount administered to be two minims of the tincture per pound, body weight. One half of this number of minims to be given as an initial dose, one eighth of the initial dose to follow three times daily until preliminary symptoms of the toxic effect are observed. A very practical and simple method and one that I have found satisfactory is to give the drug in 20 to 30 minim doses at four hour intervals until evidences of digitalization appear, then to omit the drug for 24 hours, to be resumed with two minim doses three times daily, this to be increased one minim per day, (not per dose). In this gradual ascent, a dose will be met which gives the maximum comfort, such to be regarded as the amount necessary to maintain a proper digitalis equilibrium. This dose to be continued just so long as indicated by the condition of the patient, however, the 24 hour dosage should not exceed 25 minims, this being the amount that the average patient is able to metabolize when given over a prolonged period.

Unfortunately, the signs of digitalization are not as easily interpreted as would seem. Nausea, vomiting (which may be preceeded by a sudden loss of appetite, headache, and perhaps diarrhea) are fairly constant signs that physiologic tolerance is reached, however, there are instances where one or all of these symptoms have followed the first dose, in others, such symptoms never appeared though the patients were over digitalized. It is not desired to belittle the value of these ominous symptoms, they should be carefully watched for and generally speaking, are our most valuable guide. A general rule and a valuable one is to proceed with great caution when the pulse deficit approximates ten. The pharmaceutical houses and others have written a very great deal concerning certain special preparations of the drug, claiming that they were much better tolerated by the stomach than the tincture. The question of hypodermic use of the drug for the same reason has come up for discussion, this would seem trite, for the drug does not directly affect the gastric mucosa even in massive doses because the vomiting and allied symptoms result from a central stimulation of the vomiting center.

The same may be said about the relative value of different preparations of digitalis, a discussion of the subject is beyond the scope of this paper, sufficient to state that a properly prepared and standardized tincture is the preparation which meets all requirements. There is no other more efficient and none so flexible as to dosage. For more speedy effect digitalin per hypo is frequently used, the consensus of opinion however is that it is of little or no value. Personally, I have felt that if a patient were apparently so critically ill that 12 to 24 hours, the time needed for digitilization, could not be waited, the case was a hopeless one and probably beyond the reach of medicine.

In concluding my discussion, I should like to emphasize the following points:

1.—There are most definite indications for the administration of

digitalis. It is just as irrational to give the drug in all cardio-vascular disturbances as it is to administer quinine to all patients who have had a chill.

2.—The essential indication for digitalis is failure or threatened failure of compensation. This is more emphatically true in auricular fibrillation and when there is venous engorgement.

3.—The dosage of digitalis is highly standardized, probably more so than any other drug in the pharmacopeia.

4.—There is no isolated constituent of the drug which represents all the properties of a perfect tincture.

5.—Digitalis leaf and the preparations made from it are most inconstant in efficacy.

6.—Its value or lack of value is not to be measured by its effect on arterial pressure.

7.—Digitalis is of no value as a cardiac stimulent in a heart laboring against a toxemia.

* * *

Discussion

Dr. C. A. Ray, Charleston:

This is a very excellent paper by Dr. Barksdale, and a very important one, and it will continue to be as long as fox-glove grows. The Doctor has brought out some very important points in the use of digitalis. It has been my experience over a number of years, while giving the heart special attention, and giving careful attention to the diseases of the heart and the indications for digitalis, that the most important point to be made is when not to give digitalis. If you are sure of that point, and know when not to give digitalis, and know when it is indicated and when to expect it to do good, you need have little fear as to the dose you give or the manner in which you digitalize your patient. I have, in the last three years, given as much as three drams of digitalis in one dose, and had excellent results. I gave it in cases in which I was sure that digitalis was the proper thing to give and that there was no danger from it, and I felt pretty sure of the results. The patient was digitalized and remained so for ten days. I have seen other cases in which, if I had given that dose, the patient would not have lived until I had gotten out of the house. The point is this: Be sure that digitalis is not contra-indicated, because there are cases in which digitalis will do harm. Like Dr. Barksdale, I have never seen digitalis do any good in cases in febrile condition and with weakened heart. The idea in giving digitalis is in treating the myocardium to give rest. If you digitalize the patient you will certainly rest the heart. If you bring the pulse down from 120 or 140 to 50, it is like bringing a horse down to a walk when he is out of breath, and letting him rest.

Dr. J. Howard Anderson, Marytown:

I want only to commend this paper, and to say that I think too few papers of this kind are given to the Association. This cry of "Back to the farm" is needed, and I was very glad that Dr. Barksdale went into this. It shows that he is studying the effects of drugs and giving us the benefits of his knowledge.

Dr. Judy:

I am very much interested in this subject. There is just one thing I want to ask the Doctor. That is, I

would like to have him, in his closing remarks, give us, in a concise and brief way, the contra-indications for digitalis.

Dr. Barksdale, closing the discussion:

In the first place, I may say that in speaking of digitalization, I failed to state very definitely that the amount as prescribed by Eggleston and others was two minims per pound of body weight.

If Dr. July will excuse me, I shall not go into the matter of the contra-indications for digitalis, because we are pressed for time, and, to the very best of my knowledge, that appears in the paper as given.

FLUOROSCOPIC EXAMINATION OF THE URINARY TRACT

Read at Annual Meeting of W. Va. Medical Assn., Huntington, May, 1922.

A. L. GRAY, M. D., Richmond, Va.

The apparent lack of reference in medical literature to the use of fluoroscopic methods in the examination of conditions involving the urinary tract has led me to present this short paper with a view to bringing out some of the advantages of this procedure over the usual method in which only plates or films are employed. In my own experience much information that could not be derived from the exclusive use of plates has often been obtained, and it has become my routine to combine roentgenoscopy with roentgenography in the study of these cases.

The first to employ roentgenoscopy, so far as the records available to me show, was Dr. Willis F. Manges of Philadelphia, who about 1913 employed a very heavy current for a very brief exposure, using low voltage gas tubes. His observations were chiefly confined to determining whether or not the renal pelvis was filled with the opaque solution before exposing the plate. Since the advent of the Coolidge tube and the present ready means of vacuum control, it is no longer necessary to make use of the heavy currents, and the methods employed in other roentgenoscopic examinations are equally applicable in these studies. The procedure may be carried out on almost any one of the new types of universal table.

The purposes for which the roentgenoscope will be found most advantageous may be summarized as follows:

1. Correctly locating concretions causing shadows resembling calculi in the upper abdomnial quadrants, especially the right.

2. Distinguishing calculi in the ureters from other dense concretions along their course.

3. Observing, immediately prior to an operation for the removal of a previously located stone, whether or not the stone has changed its position in the urinary tract or may perchance have passed through since the diagnosis was made.

4. Controlling the injections of opaque solutions employed in visualizing the urinary tract.

I shall discuss briefly each of these uses in the order given:—there are few of us who have had a fairly extensive amount of this work who have not experienced the embarrassment of having subjected the patient to operation for renal calculus when the stone was in the

gall bladder or vice versa. While gall stones usually present certain characteristics in formation or structure that render their differentiation from urinary calculi a simple matter, occasionally those characteristics are wanting and instead of the ring-like shadow so generally cast by a gall stone, one finds a gall stone shadow of homogeneous density or of an unusual shape so as to render impossible a correct diagnosis by appearance alone. Calcified lymph nodes often present all the appearances on the roentgenogram that are usually considered peculiar to gall stones. Again multiple facetted renal calculi are sometimes seen and they may so strongly stimulate biliary calculi as to lead at once to an erroneous opinion.

It is rarely, if ever, impossible to determine correctly the location of these shadows if they be carefully observed under the roentgenoscope, noting their movements on respiration, their depth from the anterior abdominal wall, their relation to an opaque catheter inserted into the renal pelvis or their position and behavior when an opaque solution is introduced.

In cases of shadows resembling calculi along the course of the ureters, we have satisfied ourselves too frequently that a stone was present in a pocketed ureter when the leaded catheter at some point in its course was found on the plate to coincide with or be in close proximity to the supposed calculus shadow. We have failed to consider the other plane and forgotten that the concretion may be an inch or more distant in front of or behind the catheter. Stereoscopic plates will often prove of great value in such conditions, but the powers of orientation are not sufficiently acute to estimate small distances that may mean the difference between success and failure. When the catheter and suspected shadow are very close it is better to make a plate at a wide lateral angle from the plane at which the former plate was made thus separating the shadows as far from each other as is possible. It is much more satisfactory, however, to observe the relative positions of the shadows and note their change of relation while rotating the patient under the roentgenoscope and by shifting the tube, applying the well known parallax method of localizing them with reference to each other. This simple method, if carefully pursued, will often avert a dangerous, unsuccessful, and unnecessary operation.

Dr. J. Lloyd Tabb Jr. of Richmond has stated in a recent paper that he had found valuable aid in differentiating calculi in the lower ureters from other opaque bodies, in digital palpation through the rectum or vagina, observing the movements of the concretion in relation to the opaque catheter. This seems to be a distinct addition to our diagnostic methods.

The roentgenologist has also not infrequently been unjustly censured, or at least has experienced the mortification of being confronted with the report that the operating surgeon found no stone when a positive and correct diagnosis had been made of its presence in some portion of the urinary tract. This may have been due to change of position of the stone between the time of the roentgenogram and the operation. It has long been recognized

that the passage of a calculus of small size may not be attended with pain and the stone may have passed from its location, if in the ureter, either toward the bladder or kidney, or may have been extruded from the entire urinary tract. It is well to safeguard the diagnosis by observing the stone immediately before the operation, if it is of such size or shape as to render a change of position at all probable.

Again, nervous and irritable patients, who may object to cystoscopy may be saved a double anesthetization by being previously prepared for operation and the ureteral catheter introduced if necessary and the roentgenoscopic examination and operation done under the one anesthetic.

Finally, to be able to watch the course and behavior of the opaque solution passing from the fenestra of a ureteral catheter and filling the ureter and renal pelvis can not fail to be of the utmost value in uro-roentgenology. Under the roentgenoscopic control one may see whether or not the pyelogram is to be a success before the plate is exposed or whether the solution has regurgitated into the bladder, and may save the patient unnecessary pain or serious injury by stopping the injection the moment the pelvis is filled.

Perhaps a short description of the procedure as practiced in my laboratories may serve to emphasize some of the advantages that it offers: In order to block the ureteral orifice the largest opaque catheter should be introduced that is susceptible of passage. This should be passed as far as the kidney pelvis, but not into it except for special reason, in order to determine the patency of the ureter. The catheter should then be withdrawn until its distal end is at or below the brim of the true pelvis. The opaque solution should be allowed to flow by the gravity method until the pelvis is seen to be filled when the flow should be temporarily shut off. The ureter is thus not held straight by the stiff catheter but may be outlined in its course, whether normal or otherwise and kinks and irregularities may be demonstrated that could not be shown with a more or less rigid catheter in the lumen. Up to this point the fluoroscope has guided the entire procedure. A plate is now placed in position and the X-ray tube properly adjusted. The opaque solution is again permitted to flow continuously during the exposure of the plate. After the examination the solution is allowed to return through the catheter and, if desired, the tract may be irrigated with sterile water or other solution to reduce the further possibility of discomfort or damage.

Occasionally in very large patients and in the presence of concretions of very small size, the shadows may not be recognizable, but with a well darkened room and a good equipment the eyes of the roentgenologist having been rendered sensitive by at least thirty minutes in darkness, one will be astonished to find out how small an object may be visible. By this method it is very exceptional for a patient to experience any pain of consequence either during the examination or after it other than such as is occasioned by the introduction of the cystoscope.

I wish to take occasion here to

condemn the method that has formerly been practiced whereby a piston syringe is used and a patient is warned to look out for pain in the region of the kidney injected. This method is both dangerous and unsatisfactory; dangerous in that the patient anticipating pain may not complain until serious damage has been done to the kidney from an unknown amount of pressure exerted through the piston syringe. More often, however, at the suggestion that pain will be experienced, the patient will complain when little or no solution has been introduced into the pelvis. Instead thereof the patients should be informed that they will experience no pain of consequence and the prediction will usually be verified.

* * *

Discussion

The President:

Dr. Gray has certainly given us the treat of a very interesting paper, and his slides are very interesting. The paper is now open for discussion.

Dr. Oliver P. Barker, Parkersburg:

I enjoyed hearing Dr. Gray's paper, and I quite agree with him that the diagnosis of suspicious shadows in the neighborhood of the ureter with the x-ray is not conclusive. They will often prove to be calcified glands, or so-called nodes. However, the clinical symptoms of these conditions frequently simulate ureteral calculi. The real diagnosis can be brought out by the use of thorium, as I expect to show by the use of a few pictures in a short time. Sometimes only a small amount of fluid has been injected when there is a spasm of the pelvis. This should be differentiated from other conditions which would prevent the filling of the pelvis.

So far as pain is concerned, in the use of thorium, I think it depends frequently upon the condition of the pelvis. The amount of fluid that can be injected into the pelvis is no indication of the size. I have found that frequently, especially in females, when an attempt was made to gauge the capacity of the pelvis by the amount of fluid injected, when the cases are of long standing a much larger quantity of fluid can be stood.

The development of the actual technique I leave to Dr. Boice, who does all the work for me. My work is in connection with ureteral catheterization and the injection of thorium and sodium bromide.

Dr. R. H. Pepper:

I think the Association is to be congratulated upon having this excellent paper of Dr. Gray's, and we are under a debt of gratitude to him for coming out here to give it to us. He has covered the ground so thoroughly that there is nothing we could add, and very little we could criticise. I would like to emphasize the dangers he spoke of, in the direct method. It is dangerous, and I think has been abandoned.

Dr. Gray has covered the subject so very well that I do not see that we can add anything at all.

Dr. Aubrey C. Belcher, Huntington:

There is one point about this paper which is very pertinent, and I think should not be overlooked, viz., that at the present time, in the clinics of America, gravity is not being used. In the Mayo clinic, which does over 14,000 pyelograms a year,

they use entirely the syringe method. It is my object only to state facts.

The type of catheter, I think, makes very little difference. The position makes very little difference. Any man who injects a catheter and injects it slowly is safe. If it is jammed up the patient will immediately complain of pain. Then withdraw it and proceed to inject, and the patient is usually very comfortable.

Sodium bromide is absorbed in about forty minutes, so we can not have a great deal of trouble from the injection.

The floating stones are a very interesting problem. Most of which I have observed are in cases I dilated first.

Lead catheters are good. If they are put in—and I use them altogether—I pay no attention to the lead. I give attention to the injection of the pelvis and the ureter.

The question of the end results, I think, is very interesting. In the year 1919 there were 50,000 patients examined at the Mayo Clinic, and out of that number there were 35,000 x-rays. Out of the 35,000 x-rays there were —— kidneys, showing the value of renal pathology. Hence we should be more careful in coming to a direct conclusion. Now ———, whom I consider the best man in America today in renal pathology, does not report stones from x-ray plates today. He reports shadows, and probably stones. I think the roentgenologist tomorrow will not report positively. He will report in terms of shadows, probably stones.

Dr. W. S. Robertson, Charleston:

I have listened to Dr. Gray's paper with a great deal of interest. I think there is one thing to be said in regard to this paper, which has come to be, as I see it, a discussion of ureteral stone, and that is that the x-ray does not by any means show all the ureteral stones, and the fact that you do not get a shadow in a case of supposed renal colic does not mean that you have not a stone. In the event you still suspect a stone examination by the wax-tipped catheter is in order, for scratches on the tip will be even more conclusive than the shadow you might obtain.

One point Dr. Gray brought out is the importance of examining these cases more than once, particularly if operative interference is considered. All of us are probably familiar with cases in which a diagnosis of ureteral calculus or renal calculus is made, operation is done in the flank or over the kidney region, and no stone is found, the shadow either not being in the urinary system or having passed on down through the discharge of the bladder.

Dr. Gray, closing the discussion:

Dr. Barker has referred to the question of spasm's causing an imperfect filling of the pelvis of the kidney. I agree with him fully that that is very often the case. I think, however, that we can determine whether we have spasm or some other condition preventing the filling of the pelvis if we watch the solution under the fluoroscope go into the pelvis of the kidney. The spasm does not occur in the pelvis of the kidney, in my experience, at least until some of the solution has reached the pelvis. If the pelvis has started to fill and there is a con-

traction which expels the solution back down to the ureter, then you know you have a spasm and not a tumor or other obliterative condition.

Dr. Belcher referred to the practice at the Mayo Clinic. This paper which I prepared is largely the result of a conversation I had with Dr. Braasch, of the Mayo Clinic, some time ago. I want to say that Dr. Belcher may be able to use the piston syringe and know when to stop, but that does not mean that Dr. Jones or Dr. Smith can do the same thing. It happens that one of the plates which I showed today, and which I criticised as severely as I could, was made by one of the professors who taught Dr. Belcher at the college with which I am connected. He is a cracking good man, but it was done without fluoroscopic examination. Dr. Braasch has never tried, so far as I know, fluoroscopic control. He told me that he would try it and probably use it, and that it would be of very great value.

I fully agree with Dr. Robertson that we miss a great many stones. You notice that I did not say anything about that. I referred to the ones we find. I think the use of the wax-tipped catheter is, of course, a recognized method, but a scratch on a wax-tipped catheter is not always a definite indication of stone. A scar in the ureter or a firm constriction will sometimes produce a scratch which it is very difficult to differentiate from that produced by a stone.

As to reporting shadows, I am a little loath to lose my identity as a doctor by reporting shadows here and there. I practiced general medicine for some ten years, and I tried to find out what everything meant. It does not satisfy me, either in urological work or chest work, simply to report shadows. I generally try to make some definite conclusions, but not in a mechanical way, after conference with the urologist. I do not report that a patient has no stones. I report no stones found, and that expression will sometimes cover a multitude of sins.

"LEST WE FORGET"

Read Before the B-R-T. Medical Society at Davis, July 29, 1922.

By JOSEPH L. MILLER, M. D.
Thomas, W. Va.

We have our memorial days, both religious and civil, to keep green the memory of great events and personages. With Christmas and Easter we remember the birth and death of Christ, though unfortunately to many they mean hardly more than a time for gifts and a new outfit of clothes. Our Fourth of July annually reminds us of the proclamation of one of the greatest documents of civil liberty ever penned. With Mothers' Day carnations and sermons we publicly recognize the travail and devotion of the mothers who gave us being and loving care.

Why then should not we, as members of the greatest of all the professions, from time to time give a meeting of our societies, or at least now and then devote a paper to recalling the names and work of those great physicians of the past, whose epoch making contributions mark the progress of Medicine from em-

piric superstition to scientific rationalism? To lay wreaths of recollection upon the lives of these men, the results of whose labor we accept and use as unquestionable—as ignorantly of their source as we do the daily food that comes to our table. Many times not even knowing the name of him whose careful experiments, or keen observation and interpretation of facts ages old revolutionized the thought and practice of our art. Why should we leave all of this to a few medical antiquarians and historians, any more than every good citizen should leave to the President and Senate the keeping green the memory of the Declaration of Independence and the Emancipation Proclamation and the great men who enunciated and defended them?

As we read our textbooks and journals presenting to us the existing state of medicine as a science and art, there is very rarely given any historical perspective and no mention made of the steps by which it has arrived at this state. Such names of the old masters as are mentioned are but the names attached to certain diseases and operations, and little or nothing is said of the part they played in the evolution of our knowledge or of what manner of men they were. Seeing only the perfected results of their labor we fail, on the one hand, to realize the difficulties overcome by these pioneers, and on the other to grasp the real significance of the revolutions of thought and practice effected by their master minds in the various branches of medicine and surgery.

How many of us know more of Harvey (1578-1657) than that he discovered the circulation of the blood; or of Lister (1827-1912) than that he is called the father of antiseptic surgery? What do we know of Galen (131-201 A. D.), Vesalius (1514-1564) and Fabricus (1537-1619), whose dissection and study of anatomy brought them quivering to the very brink of Harvery's discovery; or of White (1714-1813) of England, and our own Valentine Mott (1785-1865) who practiced antiseptic—I might almost say aseptic surgery years before Pasteur and Lister gave it a rational basis?

Americans, at least, should know that Oliver Wendell Holmes (1809-1894) antedates Semmelweis (1818-1865) by four years in the publication of a paper proving beyond all shadow of a doubt the contagiousness of Puerperal Fever and strongly indicting the attending physician and midwife for its origin in their cases. A paper that for its martialling of facts, clarity of reasoning, and incontestable conclusions will ever remain a gem of medical literature to be read and re-read with interest and pleasure.

As we percuss a chest or abdomen and listen with our stethoscopes to the various sounds beneath the surface, do we ever think of Auenbrugger (1722-1809) who discovered percussion in 1761, or of Corvisart, (1755-1821); Napoleon's chief physician, who re-introduced it in 1808 after the profession had neglected it for a generation and so laid the foundation of physical diagnosis; or of Corvisart's brilliant pupil, Laennec (1781-1826), the tubercular Breton, who introduced the profession to auscultation and invented the stethoscope

in 1816? Osler says of Laennec that "his own use of it and observations on the diseases of the heart, lungs and abdominal organs were the greatest advance made in clinical medicine since the days of Boerhaave, and may be said to have founded modern clinical science." The great work of Cabot of Boston in correlating the clinical history of a patient with the postmortem findings is admired and followed by teachers everywhere, but do they ever think to give credit for its origin to the brilliant Laennec who a century ago followed the same method and stood alone of his own generation and all that had gone before as the pioneer in this form of clinical teaching?

When making a diagnosis of Typhoid or some other form of continued fever, do we recall that, aside from Malaria and certain eruptive fevers, the profession knew little of the differences of the rest until about a hundred years ago the great French teacher, Louis (1787-1872) differentiated Typhoid from the rest of the continued fevers, and his American pupils, Gerhard, Stille, and others went farther and proved that Typhoid and Typhus were not the same disease under different conditions as had been thought previously?

One might go on indefinitely citing names and epoch making discoveries in medicine, but surely the few given are enough to excite our interest and study. Anatomy, physiology, obstetrics, surgery, clinical medicine — all have their great epochs and great names—men who have laid stone on stone in the solid wall of the wonderful edifice of modern medicine. Every doctor's library should lay its foundation upon Camac's "Epoch Making Contributions to Medicine" and Garrison's "History of Medicine," even if they do not include any of the other interesting and valuable works of biography and history of special subjects. Those who have not done so have no idea of the delight that comes with an hour or two spent now and then in the pages of such books, or of the broader and more interesting vision one gets of his profession.

THE CANCER PROBLEM

Facts Every One Should Know Regarding the Prevention and Treatment — Dr. Wood's Letter Concerning Radium—By FRANK LEMOYNE HUPP, Wheeling, W. Va., Chairman of the West Virginia Branch of the American Society for the Control of Cancer.

The American Society for the Control of Cancer along with the United States Public Health Service, have contributed much helpful literature regarding the prevention, treatment and cure of this disease, which destroys annually almost 100,000 lives in this country.

There are certain definite facts concerning cancer which cannot be repeated too frequently, definite conditions which we as clinical observers have seen, and which are known to preceed this disease, and if avoided or arrested at their inception will save life. It is these facts which we would have every nurse, teacher and person who seeks the truth, know. It is the knowledge of these facts which will aid in the reduction of this high and unnecessary mortality, facts that should be published broadcast and made so plain that "he who runs

may read."

(1) Cancer at the beginning is usually painless and its onset for this reason is especially insidious and dangerous.

(2) Cancer is at first a small local growth which can be safely and easily removed by competent surgical treatment or by Radium or X-Ray.

(3) Cancer is not a constitutional or "blood" disease.

(4) Cancer is not contagious.

(5) Cancer is not hereditary.

(6) Every lump in the breast should be examined by a competent doctor.

(7) Persistent abnormal discharge or bleeding is suspicious and should be investigated.

(8) Sores, cracks, lacerations, lumps and ulcers which do not heal, and warts, moles or birthmarks which change in size or color, or appearance, may turn into cancer unless treated and cured.

(9) Probably 60 per cent of cancers of the rectum are first regarded as piles. Insist on a thorough medical examination.

(10) Continued irritation, whether it be from a corset steel or from the taking of too hot food into the stomach is the usual cause of cancer. It rarely results from a sudden injury.

Much has been published in the daily press about the cost of radium and a great deal of misinformation has been circulated bearing on the effect of this precious element on the various stages of cancer. Dr. Francis Carter Woods, Director of The Institute of Cancer Research, Columbia University; Pathologist to St. Lukes Hospital, New York City; and member of the Executive Council of the American Society for the Control of Cancer in a recent letter to the New York Times has answered these questions so clearly that the West Virginia Committee feel that it is fitting and proper at this time, on the eve of the second annual cancer week to republish in full.

To the Editor of The New York Times:

In your issue of July 27 you print an interesting letter from a Mr. Arthur Reedy on the lowered cost of radium and the consequences resulting therefrom. A few slight errors have crept into this letter, due presumably to the fact that the writer is not a physician.

In the first place, the fact that the price has fallen (and it has fallen much lower than $100 a milligram, for on my desk lie three letters offering this valuable substance at prices ranging from $82.50 to $95 a milligram) does not place radium within general reach. For properly to treat any form of cancer requires in general from 50 to 100 milligrams, and most forms of the disease need much larger quantities if they are to be benefited to the slightest degree. Most physicians will prefer, therefore, instead of sinking $5,000 to $10,000 in this expensive material, with which only a few patients can be treated, to obtain rather one of the new high-powered X-ray machines, which deliver as much radiation per minute as that derived from a million dollars' worth of radium at present prices, and thus enables him to treat many patients at a low cost. A knowledge of this fact is behind the present break-down in the radium market.

Nor is it, in fact, desirable that every physician should possess a stock of radium or even an X-ray machine. The use of either requires a knowledge of technical matters and an experience which the average physician does not possess, and much harm is being done to patients by the ill-advised and indiscriminate use of powerful radiation in the hands of the inexpert. So widespread has this abuse become that the Board of Health has required those using X-ray machines to be licensed, but such license is granted only after an investigation has shown professional competence. No doubt the licensing of those using radium will follow. Therefore, in the future the treatment of cancer by rdaiation will, or should, be confined to well-equipped special institutes attached to our large hospitals where experts can control the use of two most powerful and dangerous remedies.

Nor, unfortunately, will the reduction in the price of radium tend to reduce the death rate from cancer. This statement assumes that radium will cure cancer. Those who have used it most prefer not to say that cancer can be cured by radiation, but, instead, speak of its arrest or amelioration; witness the recent public statement of the Trustees of the Memorial Hospital and the published reports from the London Radium Institute. The physicians in charge of these two admirable institutions control some eight grams of radium between them and have had a very large and varied experience, so that their opinion must carry great weight. On the contrary, despite the lowered price of radium, the cancer death rate as reported by the Census Bureau is going to increase steadily. The reason is simple; thousands of people die today of unrecognized cancer. As the public knowledge of the nature and sumptoms of the disease increases, more of these cases will be recognized, so that the reported rate will rise. This, as has been pointed out by the Society for the Control of Cancer, gives no cause for alarm, as it is not at all certain that the disease itself is increasing or, if so, but very slowly. But the first effect of the society's "Cancer Weeks," the second of which is to be held early in November, will be to show an apparent increase in the amount of recorded cancer; this will be followed, though, only after some years have elapsed, by a fall in the death rate due to the earlier treatment of suitable cases by operation. But this benefit will accrue only if people inform themselves of the nature and symptoms of cancer and act upon their knowledge by consulting a physician at an early stage of the disease in order to obtain proper treatment.

Only early cancer can be cured; when the disease has reached an advanced stage it can be ameliorated only by the application of surgery, radium or X-ray. Thus the fall in the cancer death rate, pending the discovery by scientific research of some effective medicinal remedy, will not depend upon the price of radium but upon the intelli gence of the people of this country in informing themselves concerning cancer and also upon their acting upon this information.

FRANCIS C. WOOD,
Director of the Institute of Cancer Research, Columbia University.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M.D., Editor.
C. R. ENSLOW, M.D.
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All original articles for this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

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Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

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All advertisement must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

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THE CHILDREN PAY

The season is approaching when school work starts, and thousands of children will take up their studies. Most of them have been spending the past three months practically out of doors playing, and are physically in good condition.

Of course very, very many of them have physical defects which should be corrected before they are entered in the schools, where, for nine or ten months they will be more or less herded together. "Herded" is used advisedly for it seems that regardless of the rapidity with which provision is made for the accommodation of increased numbers, still there is never room enough.

The most important problem, however, is the danger of acute infections, such as Diphtheria, Smallpox, Whooping Cough, Measles and so on, some of which are absolutely preventable.

Unfortunately there is great, almost abysmal, ignorance concerning

the value of preventive methods in the minds of the parents and guardians of the children who will be the sufferers. It is astounding how little the majority of the parents really know concerning vaccination and diphtheria immunization, and how "wrong" most of the information usually is. One cannot but feel utterly amazed that intelligent and successful people are violently opposed to these measures.

Anti-vaccinationists are still rampant, just as dangerously so as ever before. They will probably point to the 50,000 alleged deaths in the Philippines from smallpox. If the truth was told to them it would run off like water off the back of the proverbial duck. This is that the majority of the deaths were among children who had not been vaccinated, owing to a relaxation of the stringent vaccination regulations.

Since there is a more or less world-wide incidence of this disease at this time, it is especially important that all children entering school be vaccinated.

Then again comes the question of Diphtheria. There is no necessity for me to write of the horrors of this. It is only too vivid in the minds of physicians and those of the laity as well.

True we have a specific in Antitoxine, and yet it is usually the case that we do not see the patient until they have had sore throat anywhere from one day to a week. A good many are past the Anti-toxine point by this time, or have already a diphtheritic paralysis. This will of course be blamed on the use of Antitoxine if the patient lives. If one could see every case of diphtheria in the first six hours and give the Antitoxine there would be no mortality from this disease.

Then again if we physicians would take note of the value of the Schick test for the detection of the non-immune to diphtheria among the children in our families and that the administration of the toxin-antitoxine mixture to the non-immune to diphtheria will insure that their families will escape this disease, a great deal of good will have been accomplished.

It is up to us as Physicians to keep abreast of Medical progress if we would maintain our standing before the people. Unless we do they will gradually insist that their States, and possibly the Federal Government take over the whole of medical treatment.

Unless our profession does advance, and by this I mean the rank and file, not the scientific workers but the men on the firing line, this outcome will arrive far sooner than we expect.

How many of our members know of the use of the Schick test and the immunization against Diphtheria?

IT IS UP TO US.

CARELESS REMARKS

In the Journal of one of our sister State Associations, we find a statement to the effect that the Committee on Medical Defense is having to defend one of their members against the accusation that he had used too much Diphtheria Antitoxin; in another section of the State a suit is brought against another of their members for malpractice because he did not use a sufficient amount of Antitoxin, so it would

seem that again is proved the "damned if you do and damned if you don't" saying.

We cannot but feel that possibly we physicians are responsible for many of the suits brought against other members of our profession for this, that and the other alleged neglect of treatment of patients whom we have under our care.

We are all too prone, when we are told of various things, either by our own patients, or mutual friends of some other man's patients, to make a criticism as to what was done, or what was not done. It is possibly the "gossip sense" or instinct which has apparently been handed down to us from the time when Adam was a boy, which makes us comment. How very important it is for us to refrain from making comment upon the treatment administered by our fellow physician. We do not know the circumstances surrounding the majority of instances unless we have been called in consultation in these cases. We do not know the indications, or lack of indications for certain therapeutic procedures which may have been or may not have been administered, and there are none of us, at least none that have come under our personal acquaintanceship who are so infallable as to be justified in criticising about things of which we know nothing.

Several times we have known of malpractice suits brought against physicians which have been as a result of an unthoughted remark made by some other member of the profession, forming a basis for alleged malpractice. The question which comes to my mind as to whether or not the suits which the Pennsylvania Defence Committee is hvaing to take up are not the result of some such unthoughted remark.

Why it is that members of the medical profession will persist in saying and doing things which usually do not injure the individual, but do act as a boomerang to the profession at large is beyond our comprehension. In the majority of instances it is envy or just pure maliciousness which prompts these unwarranted attacks, and yet the one who makes the remarks is the one who ultimately suffers for it. Certainly the standing of the whole profession is called in question when we fight among ourselves, and it is no wonder that so many of the laity get such a sarcastic and critical attitude.

We feel very sure that the State Association of Pennsylvania will have no trouble in defending these suits. It is to be devoutly hoped so, as there has seemingly developed an "open season" for malpractice suits against physicians.

MEDICAL ETHICS

One factor distinguishing medical from other professional ethics is that medical ethics relates largely to acts immediately affecting the lives and health of human beings, and not to merely abstract principles. This distinction has been recognized, since the days of Hammurabi, in all statements of principles, or so-called codes, of medical ethics. It is interesting to note, too, the permanence of the statements of ethical principles governing specifically the acts of physicians, as formally approved by the American Medical Association, since the adop-

tion of the "Code of Ethics," at the first annual session of the Association, in 1847. The code then adopted continued in effect until 1903, when, at the New Orleans session, it was superseded by a new statement there adopted, and the title changed from "Code" to "Principles" of medical ethics; but even then only minor modifications were made, the most important being the omission of the chapter defining the relationship which the public and the patient should hold to the practitioner of medicine. In 1912, the statement of the "Principles of Ethics" was revised, but the changes were hardly more than changes in phraseology. New conditions, however, have recently developed in the practice of medicine, and group and institutional practice have loomed up as elements to be reckoned with. Many physicians, it is to be feared, have quite unconsciously tolerated on the part of groups and institutions with which they are connected acts which they would not for a moment have considered if they had felt that they individually were responsible for them. It has always been recognized, for instance, that "solicitation of patients" is unprofessional, and that a physician cannot ethically engage in such solicitation. Justice and fairness demand that the practice be not indulged in by physicians through groups or institutions with which they may be connected, any more than it would be indulged in by such physicians acting in their individual capacities. These considerations led the House of Delegates at the last annual session in St. Louis to incorporate in the "Principles of Ethics" the following, so that there might be no doubt as to the duty of groups and institutions or of the physicians connected with them:

Sec. 4.—Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements ,or by personal communications, is unprofessional. This does not prohibit ethical institutions from a legitimate advertisement of location, physical surroundings and special class—if any—of patient accommodated.

As may be noted, it is recognized that "institutions" which provide means for treating the sick and which have certain physical attributes which can properly be announced may call attention to these facilities. But groups of physicians associated for any reason, in group clinics or other institutions, should conform to the restrictions governing the individual physician. For professional and quasiprofessional acts committed by such groups or institutions, the physicians connected therewith must hold themselves accountable—Jour. A. M. A., July 8, 1922.

DR. JAMES H. ROWSEY

Dr. James H. Rowsey was born August 8, 1867, at Upland, Mason County, West Virginia. He was the son of William H. and Julia A. Rowsey. His preliminary education was secured in the rural schools of Mason County and at Lebanon, Ohio. After several years spent in teaching he entered the Kentucky School of Medicine, from which he graduated June 21st, 1892. The next year he spent as an intern in the

Louisville City Hospital. In September, 1893, he located at Humeston, Iowa, but the following year he returned to Upland and entered practice there. He remained in this location until July, 1909, when he moved to Huntington, where he practiced until his death. Dr. Rowsey took several post-graduate courses during his active career, in New York, Louisville and Chicago. He was a past President of the Cabell County Medical Society, and was a member of the West Virginia State, the Southern, and the American Medical Associations. He was a member of the Twentieth Street Baptist Church, and the Junior Order United American Mechanics. He was married to Miss Elsie Bubenzer, R. N., October 16, 1899, who with his father and several brothers and sisters survive him.

Dr. Rowsey was one of the most popular practitioners of Huntington. He was a tireless worker, and one of the leading citizens of the eastern section of the city. His death August 3d, 1922, following a prolonged illness of carcinoma, while not unexpected, cast a gloom over the medical profession in Huntington. His body was taken to his old home at Upland and buried on August 6. The active pallbearers were: Dr. J. A. Guthrie, Dr. E. B. Gerlach, Dr. W. A. Baker, Dr. T. W. Moore, Dr. Oscar A. Kent and Dr. W. E. Vest. The honorary pallbearers were: Dr. W. E. Neal, Dr. C. W. Warnock, Dr. I. W. Taylor, Dr. R. J. Wilkinson, Dr. J. R. Bloss, Dr. S. P. Walker.

W. E. V.

COUNTY SOCIETY REPORTS

The Barbour - Randolph - Tucker County Medical Society met in Davis, Tucker County, on July 29th, at 7:30 p. m.

Present — Drs. Miller, Bolton, Dove, E. F. Moore, Butt, McIntosh, Danford and Irons.

Visitors—Drs. Lyon of Parsons, Thompson of Douglass, Dyer of Davis, Montony of Harmon, and Campbell of Davis.

Before entering upon the business of the Society, Dr. Butt treated those present to an elegant supper, served at his former home in Davis, in which he was graciously assisted by his sister. As a small way of appreciation the Society gave Dr. Butt a unanimous vote of thanks for his hospitality.

In absence of the President, Dr. Miller presided. The minutes of the last meeting were read and approved,—all communications read and acted upon. Dr. J. W. Bosworth of Philippi, now in his 86th year, was made a life member of the Barbour-Randolph-Tucker Medical Society, and having been a member of this Society for more than fifteen years, is recommended for life membership in the State Medical Society, free of charge, with all benefits.

The letter from Mrs. Haskins giving notice of the organization of Child Welfare Work, and asking cooperation of the members of our Society, was read. Letter from Dr. Gilchrist of National Medical Corps, U. S. Army, Chief Medical Division, relative to the real effects of gas inhalation in production of tuberculosis was read, and reports of investigations distributed to members.

The Society approved of a resolution to secure a better sympathy and cooperation with physicians and medical societies, by asking the public to attend our meetings, and learn what we are doing, and when practicable secure papers or addresses from Dentists, Lawyers, Ministers or the public, on subjects of mutual interest. Dr. Butt was appointed a committee of one to secure a speaker or speakers, for public address.

Since the present law requiring jury trials, for those practicing "The Healing Art," without a State license, is cumbersome, tedious in effect, and expensive as well as uncertain, a change in the law is deemed necessary, so as to reach them by judicial injunction in cases of known law violation. A committee of three, viz: Drs. Butt, Bolton and R. S. Irons, was appointed to act with our State Legislative Committee in securing such a change. We desire that all component societies get busy, appoint advisory committees, interview our legislative and senatorial candidates, and have this necessary change made, that our laws governing the practice of medicine in this state may no longer be made a farce.

Dr. Danford read a well prepared paper on "Special Phases of Inquinal Adenitis," reporting an interesting case. Dr. Moore, a paper "Facial Erysipelas in Infant, Followed by General Streptoccic Infection, with Multiple Abscess." The most unusual feature of this case was the lack of internal medication. Supportive diet and use of solution Nitrate Silver locally. On discussion some have had good results from Tr. Iodine, others use Carbolic Acid, full strength, followed quickly by Alcohol applied around the margin of eruption. Dr. Bolton read a paper "Valuable Remedy Not Appreciated." Dr. Bolton has had most remarkable results from use of Permangante of Potassium in supperative or infected sores. He commends its use in Otitis Media, Gonorrhea, Snake Bite, Morphia Poisoning. Dr. Miller praises its use in inflamed cervix. Dr. Moore has had satisfactory results in treating common ear ache with tannic acid and glycerine, applied hot—as also in controlling and checking discharge in Otitis Media. Dr. McIntosh uses 15% solution Argyol in suppurating ear. Dr. Butt claimed good results in treating gas gangrene by using strong solution Permanganate Potassium.

Dr. Miller read an excellent paper "Lest We Forget." In this paper Dr. Miller urges we memoralize the great men of our profession—the pioneers that first, through great difficulty and hard study pointed out the way.

Dr. Butt moved the Secretary write Dr. C. S. Hoffman the greetings and regrets of the Society, our anxiety as to his health, and regrets as to his absence.

Drs. Irons and Butt reported a case of "Acute Abdomen" peritonitis from gonorrhea infection in a child between five and six years of age.

Dr. Miller reported a case most peculiar, and difficult of diagnosis. A man has affliction of limbs, pain, induration of flexor sides, contraction accompanied by purple spots—persistent and long standing, and not responsive to any treatment. Dr. Bolton asked to report diagnosis at next meeting.

Society then adjourned to meet in Elkins, unless Barbour County desires the meeting.

J. C. IRONS, Secretary.

Princeton, West Va.
July 27, 1922.

The Mercer County Medical Society held its regular monthly meeting at the Princeton Hospital on the evening of the above date, preceded in the afternoon by a surgical and medical clinic given by Dr. W. H. Wallingford and his staff, assisted by Dr. I. A. Arnold, Instructor of Surgery at the University of Louisville, Ky. The operations were performed by Drs. Arnold and Wallingford as follows: Exploratory Laparatomy with a suspension of the uterus and appendectomy; Cholelithotomy; Caesarean Section and appendectomy; Club Foot, open operation; Congenital Dislocation of the hip, bloodless operation; and a Plaster Cast was put on a boy who was suffering from what was supposed to be a T. B. abscess in the region of the left kidney. Dr. H. C. Hays did a Tonsillectomy and Adenotomy, and Dr. W. B. Sisson showed us a very interesting case of Typhoid Fever in a child along with other instructive medical cases. Mrs. M. S. Duling demonstrated Gas-Oxygen Anaesthesia and Mrs. N. M. Noel showed us some clear X-ray pictures. In all it was a very good clinic. We were kept professionally entertained and every movement was carried out with great precision from 1:30 to 6:30 p. m.

At 7 o'clock we gathered around the festive board on the big porch of the Nurses Home and enjoyed a delicious banquet of many good things to eat, with coffee, milk and iced tea to drink.

We were highly entertained by the many spicy toasts made by our visiting physicians and some of our own members.

The society convened and the president called it to order, there on the porch, at 8:30 p. m.

The reading of the previous meeting was postponed.

Dr. W. T. Henshaw of the department of health, Charleston, W. Va., having telegraphed the secretary, the day before, asking that Dr. Ziegler of the State Department of Health be placed on the program, and Dr. Ziegler having just arrived he was invited by the president to state to the society the request he had to make, which he did in very few words as follows: He advocated the establishing of a full time health officer in Mercer County and wanted this society to go on record as being in favor of this movement, and requested that each member put forth his best efforts and influence to attain this end. After some lengthy discussion by Drs. Kirk, Wallingford, Carr, J. R. Vermillion and Steele a motion was duly made and seconded that this society indorse a full time health department in Mercer County which was carried by a vote of 9 to 6.

Dr. W. H. St. Clair read us a very interesting and instructive paper on "Some Further Observations on Gall-Bladder Surgery." He pointed out to us some new and important ideas and methods in handling these surgical cases. It showed that Dr. St. Clair and his associates are doing some very good work in Gall-Bladder Surgery. This was discussed by Drs. Wallingford, Rixie and Rogers and closed by Dr. St.

Clair.

In a second talk Dr. Ziegler gave us he assured us if this county would establish a full time health department the State would assist us with $1,000.00 and it would not take over a 3-cent levy.

The following applications were received: Dr. Milton S. Duling, Princeton, W. Va.; Dr. W. L. Hunter, Tralee, W. Va.

There were 44 visitors and members at this clinic and meeting throughout the day.

Visitors: Drs. I. A. Arnold, Louisville, Ky., O. A. Weatherly, Bluefield, W. C. Caudill, Parisburg, Va., E. L. Caudill, Narrows, Va., C. J. Reynolds, Bluefield, Frank Pyett, Tip Top, Va., J. A. McGuire, Norton, Va., Lilley, J. H. McCulloch, Beckley,, A. U. Teiche, Beckley, W. L. VanSant, Hinton, M. S. Duling, Princeton, D. M. Ryan, Hinton, L. V. Grisson, Lilly Brook, P. H. Killey, Vivian, R. S. Peck, Hinton, E. Vermillion, W. L. Hunter, Tralee, Ziegler, Charleston.

Members: Drs. Sam Holroyd, C. M. Scott, A. H. Hoge, E. W. Horton, H. C. Hays, J. H. Bird, W. B. Sisson, F. J. Collison, J. O. Bailiff, Carl W. Smith, W. H. St. Clair, R. O. Rogers, M. B. Caldwell, U. Vermillion, B. S. Clements, T. E. Vass, B. P. Ratcliffe, J. B. Kirk, H. G. Steele, G. L. Todd, A. H. Carr, D. H. Thornton, J. R. Vermillion and W. W. Rixie.

Adjourned at 10:30 p. m.

H. G. STEELE, Secretary.

The Raleigh-Fayette Meeting at Beckley

Several months ago Drs. Templeton Adair of Mt. Hope and Chas. S. Smith of Beckley while in conversation brought up the question of having a joint meeting between the medical societies of Raleigh and Fayete. Each of these men brought the matter to the attention of their respective societies and plans were soon worked out for a joint meeting in Beckley on Thursday, July 20th. On this date the Raleigh County Medical Society was the host to the largest assemblage of doctors that it has ever been their pleasure to entertain. Early Thursday morning the doctors began to arrive—in fact, when the populace of Beckley had awakened from its night's slumber, doctors could be seen walking the streets, eating breakfast in the hotels and cafes. They seemed eager to get to Beckley—whether to attend a medical meeting or merely to obtain a day's leave-of-absence from strenuous professional duties, we do not know. Anyway, they came, from Ohio, Virginia, Kentucky, Fayette, Raleigh, Mercer, Monroe, Greenbrier, Cabell—in fact, from all over Southern West Virginia—and by noon more than one hundred had registered. At this hour the Beckley Rotary Club was the host at a specially arranged luncheon in honor of the visiting doctors whose names appeared on the program. The Rotary Club, we learn, is intensely interested in public health education and its members desired to have the visiting doctors enlighten them on this subject. The club had a 100 per cent attendance and gave us a most enjoyable dinner and a mighty good time. Drs. Douglas Vanderhoof, E. Otis Smith, C. M. Hawes and J. A. Stucky made short talks in behalf of public health education. The members of the Rotary Club were delighted to

learn that in C. M. Hawes, Huntington had a most wonderful prospect for a dandy "poet." Immediately following the luncheon, the clinics commenced at the Beckley Hospital. At one o'clock, the lawn and entire building of the Beckley Hospital was completely filled with doctors and clinical material. It was learned that the committee on arrangements was somewhat uneasy for fear that sufficient clinical material could not be obtained for the meeting, but on Wednesday and early Thursday cases for clinical demonstration began to arrive at the hospital from all over Raleigh and Fayette Counties. In fact, there was such an abundance of clinical material that hardly half of the interesting cases could be seen. Each case presented at the clinic had admitted to the hospital 24 hours previously and full clinical data obtained and this with a complete history typewritten was presented to the one in charge of each clinic. This proved very helpful inasmuch as the time allotted to each clinic was of short duration. As we entered the hospital, we registered, and then many "rushed" to the punch-bowl where "grape-juice" was served to the majority of those present. At 1 p. m. Dr. C. C. Coleman of Richmond assisted by Dr. J. H. McCulloch of Beckley performed a hare-lip operation. This was one of the quickest, neatest harelip operations that the majority of the men had ever seen. From one to three Dr. A. M. Willis of Richmond conducted the surgical clinic in another room of the building where the following cases were presented: Torticollis, Ankylosis of elbow joint, deformity of the ribs, malignancy of the thyroid, cholecystitis, depressed fracture of the skull and tumor of the breast. From one to three Dr. Douglass Vanderhoff of Richmond conducted the Internal Medical Clinic where the following cases were presented: Chorea, Bronchial Asthma, Myocarditis, Aortic Stenosis, Degeneration of the Cord, Hyperthyroidism, Heart (Specific) Auricular Fibrillation, Mitral Regurgitation. From three to five Dr. E. Otis Smith of Cincinnati conducted the Genito-Urinary Clinic and although but few cases were presented, each case was very interesting. The cases presented were those of bladder and prostatic conditions. From three to five Dr. J. A. Stucky of Lexington, Ky., conducted the Eye, Ear, Nose and Throat Clinic where the following cases were presented: Scleritis, Injured Eyes, Glaucoma, Cataract, Phlyctenular and Parenchymatous Keratitis, chronic enlarged turbinates and albuminuric retinitis. Each case presented in each clinic proved very interesting and although from the diagnosis of each case it would seem that the majority of the cases might be termed "easy," still there were unusually interesting points brought out that made the cases interesting to study. An automobile ride from 5 to 7 had been planned for the visitors but owing to a heavy downpour of rain the auto ride had to be cancelled. Between these hours an alumni meeting of the University (Virginia) College of Medicine was held in the hospital and various officers elected. At 7 o'clock the visitors were given a most delightful, enjoyable and delicious chicken din-

ner by the Beckley Hospital. It was surprising to many that a good many of the doctors did not remain over as patients in the hospital following the dinner, as so many of the men consumed so much food. Mrs. J. H. McCulloch, Mrs. C. S. Smith, Mrs. A. U. Tieche, Mrs. S. M. Miller, Misses Mollie McCreery, Suzanne Talbert, Mary Kerr and Imogene Coleman simply "pushed" the food on us and we could not resist the good dinner they had prepared for us. They passed the fried chicken to C. M. Hawes, J. A. Stucky, C. C. Coleman and J. E. Cannaday six different times and they never refused an extra helping. B. B. Richmond of Cranberry proved to be the champion coffee-drinker—consuming seven cupfuls during the dinner hour and still calling for more when the toastmaster announced that no more food or drinks would be permitted. The program called for the papers to begin at seven-thirty, but it actually required one hour and a half to console the appetites of the visiting doctors. About 8:15 Dr. C. M. Hawes, the toastmaster, announced that the papers would begin and he warned each speaker that only 15 minutes would be permitted for each paper and five minutes for discussion, and he laid particular stress on this warning to W. S. Robertson and told him that when he got up to discuss Otis Smith's paper that if he talked more than five minutes he would "break his glass over his (Robertson's) head, so help him God. The following papers were read and discussed during the evening: "Some Practical Points in Urological Diagnoses," by Dr. E. Otis Smith, Cincinnati. Discussed by Drs. R. M. Bobbitt of Huntington and W. S. Robertson of Charleston (he stopped in time and the glass was not broken). "The Surgical Treatment of Certain Types of Facial Pain," by Dr. C. C. Coleman of Richmond. Discussed by Drs. G. A. MacQueen of Charleston and R. J. Wilkinson of Huntington. "The Patient Who Suffers From Indigestion," by Dr. Douglas Vanderhoof of Richmond. Discussed by Drs. G. H. Barksdale, R. D. Roller Jr. and H. L. Robertson, all of Charleston. "The Avoidance of Shock in Diffuse Peritonitis," by Dr. A. M. Willis of Richmond. Discussed by Dr. J. E. Cannaday of Charleston. "Some Practical Points for General Practitioner and Specialist," by Dr. J. A. Stucky of Lexington, Ky. Discussed by Dr. C. M. Hawes of Huntington. Dr. W. T. Henshaw of Charleston, State Health Commissioner, was present and made a very interesting talk in behalf of public health education and urged the adoption of a full time health unit in each county throughout the State. Dr. Sam Holroyd of Athens was present and responded to the toast of "A Country Doctor." His talk was interesting and enjoyable. Just prior to adjournment a rising vote of thanks was extended to the Raleigh County Medical Society and the Beckley Hospital for their hospitality and splendid entertainment. During the day 156 doctors registered. Everybody had a genuinely good time, and all were of the opinion that this meeting was better than any State meeting that they had ever attended. If Beckley and Raleigh County give to the State Association in 1923 a meeting anything similar to this one-day affair, the State Associa-

tion, we feel sure, will vote to hold all coming meetings in Beckley, West Virginia.

STATE AND GENERAL NEWS

FIRST DISTRICT NEWS

Born, to Dr. and Mrs. A. F. Compton, on July 3rd, a girl. Mrs. Compton had been seriously ill for three months, and died July 14th. Dr. Compton spent a month motoring over the East and fishing "here and there."

Dr. B. F. Bone and family have returned from their vacation spent at their summer cottage at Lake Odessa, Michigan.

Dr. D. F. Ealy and family have returned from two weeks vacation spent at Conneaut Lake, Pa.

Dr. O. F. Covert spent fifteen days at Camp Knox, Ky.

Mrs. Mary States, wife of J. D. States, died August 6th. Mrs. States had been enjoying good health, laid down to rest and slept away peacefully.

Dr. W. P. Bonar spent his vacation at Camp Loubon. Camp Louban was named after Drs. Bonar and Loudin.

Dr. and Mrs. J. H. Luikart spent their vacation in Michigan.

R. A. A.

SECOND DISTRICT NEWS

Dr. W. W. Golden, wife and daughter of Elkins, have just returned from a tour of the West, extending as far as San Francisco and back.

Dr. M. M. Hoff has been quite ill at his home in Philippi. Dr. Hoff was quite broken in health after caring for his wife through a long fatal illness, from which he has never fully recovered.

Dr. P. L. Gray of Elkins has just recovered from an infected foot, and is now able to attend to his practice.

Uncle Tom Wilson is greatly disappointed in Mrs. Brown's failure to get the nomination for United States Senate, as he was thinking of applying for the position of Private Secretary.

Dr. Calvert of Mannington received the Democratic nomination for House of Delegates from Tucker County at the primary August 1st.

Dr. J. L. Bosworth was nominated on the Democratic ticket for President of the Board of Education, Huttonsville District.

You see our Doctors are coming to the front and—"the people are learning to know a good thing when they see it."

J. C. I.

THIRD DISTRICT NEWS

Dr. and Mrs. P. A. Haley of Charleston have recently returned from a motor trip through the Delaware Water Gap and other points.

Dr. H. L. Robertson of Charleston has returned from a several weeks visit in the East.

FOURTH DISTRICT NEWS

Dr. G. L. Howard of Huntington has recently returned from a two weeks vacation spent in Eastern Kentucky.

Dr. and Mrs. J. Edward Hubbard recently entertained at bridge in honor of Dr. and Mrs. George M. Lyon of that city.

Dr. and Mrs. Ed D. Wells and family of Huntington have been enjoying a pleasant vacation at Pence Springs.

The many friends of Dr. A. K. Kessler of Huntington will be grieved to learn of the sudden death of Mrs. Kessler. She had gone to Greenbrier County on a visit. Her death came very unexpectedly. The friends of Dr. Kessler extend to him and his children their most sincere sympathy.

MEDICINE AND SURGERY

SOCIALISTIC TENDENCIES IN MEDICINE

In recent years, under cover of promoting the welfare of society or of some part of it, James A. Gardner, Buffalo (Journal A. M. A., Aug. 12, 1922), states that many so-called reforms have been inaugurated which in reality, are little more than the outcome of the emotional desires of restless faddists or of the ideas of extreme and radical discontents. The contention is sane that all reforms of whatever nature should be made only after patient and scientific investigation of the causes and the cure of the evil sought to be corrected, and that the desire to bring about such reforms presupposes knowledge obtained by serious investigation and careful research, unhampered by emotion or prejudice. The field of medicine has been a fertile one for the agitator and the propagandist. Reformers and uplifters have been allowed to invade, unopposed, the practice of medicine and surgery, until the time has arrived for raising the danger signals. The peril of the situation becomes more urgent when it is realized that the public is being educated to believe that the socialization of the medical profession will bring higher standards of health. The fact is that, with the initiative and individuality of the physician removed, the profession will cease to attract to it men of energy, ability and ambition, who are now keeping American medicine in the front rank of intellectual and scientific achievement. Prevention and education need the aid of the government; but the State should not compete with individual skill and superior knowledge and efficiency in the care of those who have money to pay and so should not be treated at public expense. Public health is the musical instrument easiest for the welfare worker to play, and the softest chord is the venereal problem. It is not wise for a state to pauperize its people. nor is it fair to the medical profession to deprive it of its legitimate livelihood. The physician has always been too busy looking after the needs of his patients to give much time to his own interest. Unless he awakens to the drift of the tide, there will soon be little inducement for a young man of real ability to enter the medical profession. The field of social welfare or social reform has developed to such an extent in recent years that it is now a recognized profession, remunerative and popular. The solution of this problem is suggested by Gardner under three heads: (1) There should be a social service, ably trained to make real and thorough investigations and competent to distinguish between the needy poor and those possessing the ability to pay. (2) There should be an awakening of the medical profession to the realization that it is equally responsible for this pauperization.

There should be censorship of the services of the physician by some responsible body like the county medical society, as has been done in contract practice, so that patients able to pay should not be cared for gratuitously. (3) There should be education of the public to an understanding that if the standards of medicine are lowered through the loss of impetus and initiative in the young physicians, the public will be the chief sufferer.

DETECTION OF TYPHOID CARRIERS

Four outbreaks of typhoid which illustrate different phases of the carrier problem are reported on by J. N. Gehlen, Minneapolis (Journal A. M. A., Aug. 12, 1922). In one outbreak, the origin of the disease was traced to a woman who had had typhoid fever eleven years previously and subsequently sold milk in the village. The carrier in the second outbreak was a woman who had typhoid fever thirty-three years previously. She gave a positive Widal reaction, and B. typhosus was found in nearly pure culture in a specimen of feces received after six days in transit. Three of her seven children gave a history of typhoid feved. The carrier had prepared the hog's head cheese of which the patients had eaten. It is probable that this meat was infected by the carrier in removing it from the bones, a hand process, performed before the meat becomes cold. Of two brothers who received head cheese sandwiches, one threw the meat away, while the other ate the entire sandwich. The former remained well; the latter developed typhoid, and died. The carrier in the third outbreak was a woman who had had typhoid fever fifteen years previously, and who did all the cooking and handling of food in a restaurant which was the source of the infection, while her husband, who had had typhoid thirteen years previously, occasionally helped in waiting on the table. The Widal reaction was positive in blood from both urine and feces of the woman. A housekeeper was the carrier in the fourth outbreak. She had had a prolonged illness, with symptoms of typhoid fever, the year before.

THE RELATIVE ROLES OF MEDICAL AND SURGICAL TREATMENT IN GASTRIC AND DUODENAL ULCER

Relative rest, a nonirritating but ample diet, the utilization of certain simple principles as to physical therapy and simple medication, with the subsequent inculcation in the patient of proper habits of living, not only as regards diet but also as regards the proper attitude toward his environment, according to Thomas R. Brown, Baltimore (Journal A. M. A., July 1, 1922), are the fundamentals of medical therapy, in addition to the elimination of factors that may play a prominent etiologic role, notably focal infection and diseased conditions in other portions of the abdomen. He urges that cases should be individualized. Some patients will do well on milk and cream, others on a diet rich in carbohydrate, but relatively poor in protein. In some, hourly feedings are beneficial; in others, longer intervals bring better results.

Practically the same estimated proportion of cures—all, incidently, far too high in Brown's opinion, because of the improbability of correct diagnosis in certain cases and the impossibility of thoroughly following up many cases—have been reported by the violent partisans of each special detetic schema; which should suggest that frequent feeding with any suitable nonirritating diet is the great desideratum, if the patient is given, in addition, proper bodily and mental rest. Many patients are cured spontaneously, and will be cured whatever the diet, and also many others are not cured by any diet. Psychogenic and neurogenic factors unquestionably assume a more prominent role than mechanical irritation of food, and the mitigation and diminution of these factors will do more than any one thing in bringing about a symptomatic cure at least, or in preventing a relapse. Far too little attention has been paid in the period of after cure, to exercise and other forms of physical therapy to improve the nutrition of the patient. It seems wise that all acute ulcers, except, of course, those with symptoms of perforation, be tried first with medical treatment; for the success of such treatment in this group of cases is large, and it seems wise also that in the present state of surgical therapy, even in the chronic ulcers, except those with marked organic obstruction or with a history of repeated hemorrhage, nonsurgical treatment be tried first, not because a true cure cannot be effected, because in the cause of the deep callous ulcer, with induration and cicatrization cure, in the true sense of the word, cannot be obtained by medical means, though often a disappearance of symptoms and a symptomatic cure can be brought about; but because it seems fairer to the patient than immediate recourse to surgery, with its multiple possibilities of early and late postoperative complications. If, on the other hand, medical treatment does not bring about relief, it is foolish not to give the patient the possible benefit of surgical therapy. with resection of the ulcer, and as close an approximation to the normal physiology as possible, in the hope that adhension formation and disturbance of gastric function will be reduced to a minimum after the operation. Chronic callous ulcer is fundamentally surgical, and would always be surgically treated were it not for the many postoperative complicating possibilities. Many failures are not referable to the operation as it is conceived, but as it is performed; for the technical difficulties of this work are great, and the really capable surgeons in this sphere none too numerous.

IS DEATH IN HIGH INTESTINAL OBSTRUCTION DUE TO A LIVER INSUFFICIENCY?

Axel Werelius, Chicago (Journal A. M. A., Aug. 12, 1922), summarizes his review of this subject by stating that it is doubtful whether death in intestinal obstruction is due to absorption of toxic products from obstructed intestine. Bacteria do not play any special role in the cause of deaths from obstruction unless rupture takes place, when the bacteria cause peritonitis. In all drained duodenal loops, bile secretion stops before death. It is possi-

ble that with the cessation of bile secretions all the other functions of the liver stop simultaneously (liver insufficiency). Acute dilatation of the active peristaltic intestine proximal to the obstruction is the primary danger in acute obstruction of the intestine. Peristalsis stops before cessation of bile secretion. Death is always preceded by complete aperistalsis. It is possible that the amount of intestine rendered nonperistaltic bears a direct relation to the duration of life after the obstruction. Werelius doubts the assertion that the higher the obstruction, the greater is the toxicity of the intestinal contents.

RELATION OF ANESTHETIC TO PULMONARY ABSCESS FOLLOWING NOSE AND THROAT SURGERY

Eleven surgeons, whom C. N. Chipman, Washington, D. C. (Journal A. M. A., Aug. 12, 1922), interviewed, treated twenty-four lung abscesses. Twenty followed tonsillectomy; two followed submucous resection of the septum, and two followed frontal sinus operation. Tewksbury has had thirty-five cases. Ten cases were untreated (that is, artificial pneumothorax was not produced); six patients died; three recovered, and one was lost track of, so that the results could not be reported. Among twenty-five patients in whom Tewksbury compressed the lung, twenty were cured, one improved, and four died. Twenty-one lesions were in the right lung near the hilum; four were in the left lung near the hilum. Tewksbury now obtains much better results by injecting a smaller volume of gas at each sitting than he first used. Chipman believes that lung abscess is caused both by aspiration and by the infective embolus, carried to the lung by the blood stream or lymphatic system. For this condition, the anesthetist, the surgeon and the methods of procedure used, rather than the anesthetic, are to blame. Chipman states that lung abscess may be prevented if the conditions here described are met: (1) A patient should not be operated on within seven days after an attack of tonsillitis, or when there is acute bronchitis or a fever from any cause. (2) The patient should be in the hospital at least six hours, or better, twenty-four hours, before operation. (3) The mouth and teeth should be thoroughly cleansed before the operation, with some antiseptic solution. (4) Only light anesthesia should be used. (5) The head should always be down, and by suction the pharnyx kept free from infective material. (6) The tonsils and pharnyx should be painted before operation with 50 per cent tincture of iodin; also the cavity should be swabbed with iodin after removal of tonsils. (7) Bleeding should be stopped at once by suture or ligature rather than prolonged sponging, thus reducing the anesthesia and obtaining a dry pharnyx . (8) In all nose and sinus operations, a posterior nasal plug should be used. (9) The patient should be returned to his room on his side, with the head down. (10) After the operation, the foot of the bed should be elevated until the patient has fully reacted, unless the patient has high blood pressure. (11) Last, but not least, nose and throat operations should receive the same care and

skill by both the surgeon and the anesthetist as are given to an abdominal operation; and there will be fewer lung abscesses to report.

ENDOCRINOLOGY

The conception that the endocrine organs are linked together so as to form a system of reciprocally dependent organs (hormonopoietic system), Lewellys F. Barker, Baltimore (Journal A. M. A., July 8, 1922), states has gradually gained general credence, not only among clinicians, but also among physiologists and pathologists. And it must be admitted that there is considerable evidence in favor of the existence of such a correlative interdependence among the several incretory glands. Physiologists, through their experiments, have adduced many facts that point to manifold interrelationships between the glands of internal secretion. And clinical-pathologic studies have shown that uniglandular endocrinopathies are rare, whereas pluriglandular endocrinopathies are common. In exophthalmic goiter, for example, we see not only diffuse hyperplasia of the thyroid gland but also, not infrequently, hyperplasia of the thymus as well as signs of insufficiency of the gonads. In Froelich's syndrome, to cite another instance, we see not only the signs of a disorder of the hypophysis cerebri, but also evidences of hypogenitalism. It seems very probable, therefore, that in the chemical integration of the bodily activities a certain cooperation among the endocrine organs is essential. The hormonopoietic system is concerned as a whole. It, like the nervous system, helps to correlate the partial systems of the body into a harmonious unity. Though the principles of therapy for the endocrine diseases are not hard to grasp, the application of these principles in practice is compulsorily restricted, owing to the fragmentary character of existing knowledge. When, through constitutional deficits, or, under the influence of unfavorable conditions disharmonies of the hormonopoietic system arise, and evidences of hyperfunction, of hypofunction or of dysfunction, of one or more of the single endocrine organs appear, therapeutic intervention may become desirable. When a disease process has already developed; in other words, when an endocrinopathic personal variant has become incapable of satisfactory adaptation (state of irresponsivity), the physician may attempt to decrease function here, to increase function there, or to modify function elsewhere, in the hope of restoring balance, and of bringing the powers of personal adaptation again within the limits of normal responsibility. Thus, in hyperfunction of an endocrine organ it may be desirable to excise a portion of it, or to curtail its activity by diminishing its blood supply (ice-bag; arterial ligation); or, by means of a depressive radiotherapy or chemotherapy. On the other hand, in the case of hypofunction, it may become desirable to resort to organ transplantation, or to a substitution therapy (administration of gland substance, or of gland extracts, or of isolated hormones), or to attempt to revive a failing function by a dietetic hygienic regimen, or by mild stimulative radiotherapy.

TEACHING THE FUNDAMENTALS OF SURGERY

The graduate of a class "A" school who has had a minimum of one year's internship in a general hospital, who has had from three to five years' opportunity for graduate work in surgery, which has included at least six months of necropsy service, one year of diagnostic service and one and a half or, better, two and a half years of operative service, during all three of which services he has had constantly before him the necessity for using daily the essential underlying principles of anatomy, physiology, chemistry, pathology, bacteriology and pharmacology, until they have become to him absolutely familiar tools for the diagnosis and treatment of disease, who is above all a competent surgeon, who has passed more severe examinations in the field of surgery than he will ever be obliged to pass elsewhere, and who has prepared and defended a thesis of the character indicated in the opinion of Louis B. Wilson, Rochester, Minn. (Journal A. M. A., July 8, 1922), may properly be recommended for the degree of master of science in surgery or master of science in orthopedic surgery, as the case may be, to be granted by a properly constituted university of which the medical school is a part. Besides the foregoing, it sometimes happens, though unfortunately not often, that a graduate medical student shows that he has real research ability and demonstrates this beyond peradventure by making an actual contribution of considerable import to medical science. For such a student, there should be reserved the degree of doctor of philosophy in surgery or orthopedic surgery. Of course, in addition to the requirements outlined for the master of science degree, he should fulfil also those other minor conditions, particularly in relation to foreign languages, which are ordinarily required by universities of candidates for the degree of doctor of philosophy in other fields. Wilson urges the importance of graduate work in surgery, orthopedic surgery, or any other fields, being done in institutions where work in other fields of medicine is going on at the same time. Isolation, in the long run, is a serious handicap. The daily association of men who are engaged in other fields, the discussions with them in informal conferences and, especially, the frank criticisms of each other in staff meetings at which are read the articles which are the results of scientific study in the institution, all conduce to a much broader view of a specialty and to the making of much broader men who are to practice in the specialty.

THE PURPOSE OF THE GALLBLADDER

The explanation for the existence of the gallbladder has aroused as much discussion as the futility of the appendix or the utility of the thymus. The value of the gallbladder as a lucrative stone quarry for the artisan surgeon is admitted by all; but when the triumphant operator has removed it, life and gall seem to flow on as if the offending member had never had any function but that of lithogenesis. Comparative anatomy, which helps

to clear up so many puzzles, here only serves to baffle, for some animals are entirely devoid of a gallbladder and yet thrive apparently as well as those more liberally endowed. Thus, McMaster (1) relates that among the higher animals it is present in the cow and sheep, while it is absent in the horse, present in the goat, and absent in the closely related deer, and is to be found in the hog and wild boar but not in the peccary of South America. Among birds, the hawk and owl possess it, while doves do not; and among the rodents the mouse is found with the organ, the rat without. One species of gopher, the pocket gopher, is without a gallbladder, while another, the striped gopher, possesses it. Woods Hutchinson is authority for the statement that in the giraffe it is at times present and again not.

Careful studies in the Rockefeller Institute (2) have indicated clearly enough that when there is a gallbladder it works as vigorously as if it had a purpose in life, concentrating at a remarkable rate the bile that reaches it, for the mere passage of bile through the gallbladder from the cystic duct was found to concentrate it from two to four times, while the bile that enters the intact gallbladder may be concentrated ten times in twenty-four hours. Such power of concentration makes it possible for the gallbladder to serve as a storage place for bile despite its relatively small capacity, although at the same time the concentration favors the precipitation of the least soluble component of the bile, the cholesterol, and undoubtedly this explains the frequency of gallstones. On the other hand, the demonstration of this concentrating ability of the gallbladder fails to explain its functional value entirely, since we have before us the apparent good health of those who have been robbed of this organ, and the manifest good health of those species of animals that have no gallbladder. Certainly it cannot be a matter of different needs because of dietary differences, when the mouse has a gallbladder (and gallstones stones too) and the rat gets along without either.

There is the possibility that when there is no gallbladder the ducts take over its storage and concentrating function, since it is known by surgeons that after cholecystectomy the bile ducts become dilated. McMaster has put this hypothesis to the test by comparing the behavior of the ducts in mice, which have a gallbladder, and in rats, which have none, but finds that the ducts of the rat do not exhibit any power of concentrating bile such as is possessed by the gallbladders in other species. On the other hand, it was found that the bile as secreted by the liver of the rat is about eight times as concentrated as mouse bile, at least as far as pigment content goes, suggesting that the rat does not have a gallbladder since it has no need of concentrating bile. Whether the same difference in concentration will be found universally between animals with and without gallbladders remains to be seen. Certainly it does not apply to the human subject, whose gallbladder does have active concentrating powers, and without which the bile ducts become distended to a degree that is far from

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normal, and possibly capable of injury to the hepatic tissues even if this injury is not clinically obvious. Furthermore, instead of the normal relation of bile discharge to the stage of digestion, after cholecystectomy a great difference is observed. Bile dribbles continuously from the ampulla of Vater, and during fasting may fill the duodenum and be voided as such in the stools. The disturbance of function thus indicated is not without a bad effect on the digestive processes, masked though this usually is. Rost applies the term "biliary incontinence" to the continuous escape of secretion into the intestine after removal of the gallbladder. The incontinence is associated with an abnormal relaxation of the sphincter; the latter, however, recovers its tone as duct dilatation ensues. As Rous and McMaster say, the fact that few ills follow on removal of the normal gallbladder means merely that the body has adapted itself to the loss, not that the loss is unimportant. In this connection the surgeon would do well to remember that uncertainty as to function and confidence in readjustment are at best questionable motives for adventures in ablation.—Jour. A. M. A., Feb. 25, 1922.

(1) McMaster, P. D.: J. Exper. Med. 35; 127 (Feb.) 1922.

(2) Rous, Peyton, and McMaster, P. D.: J. Exper. Med. 34; 47, 75 (July) 1921.

PROPAGANDA FOR REFORM

Another Remonstrance Against Mercury Inhalation.—During the last few years the attention of the medical profession has been directed by clever propagandists to the treatment of syphillis by procedures which involve the volatilization of mercury - containing mixtures by heat and the inhalation of the resulting volatile products. There is nothing novel in the principles concerned. Inhalations as well as fumigations of mercury have been tested at various times and the procedures have been abandoned because of the uncertain dosage. The Council on Phramacy and Chemistry has refused to endorse preparations proposed for the treatment of syphillis, which depend essentially on the administration of mercury by inhalation (Spirocide Not Admitted to N. N. R.). In this decision it is sustained by a reinvestigation of the inhalation treatment of syphilis carried out by Cole, Gericke and Sollmann. The investigators point out that the assumption that mercury is more promptly absorbed by the lungs was based on physical misconceptions. In fact, the mercury is condensed on the mucous membranes of the mouth, pharnyx and respiratory tract. That in the mouth and pharnyx is, for the most part, swallowed; and the absorption then takes place by the gradual conversion of the mercury into soluble compounds. In other words, the administration of mercury compounds by inhalation has no advantage over oral administration. It has the serious disadvantage of indefinite dosage (Jour. A. M. A., March 4, 1922, p. 654).

Collosols (British Colloids, Ltd.). Collosols is the trade name applied to certain colloidal preparations of drugs made in the Crookes Laboratories by British Colloids, Ltd., Lon-

don. The Collosols are recommended for external, internal, intramuscular and intravenous administration. A few years ago the Council on Pharmacy and Chemistry investigated the Collosol products and found that some of the specimens contained precipitates and thus they were not colloidal. Commenting on the presence of precipitates, the Council pointed out that if "injected intravenously as directed, death might result, making the physician morally, if not legally, liable." In the cases in which the therapeutic claims for Collosols were examined, the claims were found to be either exceedingly improbable or exaggerated. In the Collosol "literature" there are frequent references to enthusiastic reports by Sir Malcolm Morris, K. C. V. O., F. R. C. S. E. This medical knight seems to have devoted his energies to the exploitation of Collosols and is reported to be one of the directors of the Collosol concern (Jour. A. M. A., March 4, 1922, p. 674).

Hale's Epileptic Relief—According to advertisements in certain cheap weeklies, Hale's Epileptic Relief is "prescribed by the best New York specialists." These advertisements offer to send a $1.50 bottle free. Those who answer the advertisement receive a 4-ounce (118.4 cubic centimeter) bottle of a brown liquid and a small package of tablets, also a sample box of Hale's Liver Tablets. The American Medical Association Chemical Laboratory analyzed these preparations, and reported that the preparations give tests for ammonium, sodium, and potassium bromide, and that the bromid content is equivalent to 24.73 gm. of potassium bromid per hundred c.c. The tablets were found to contain emodin bearing (laxative) drugs — possibly aloes (Jour. A. M. A., March 4, 1922, p. 672).

More Misbranded Nostrums.—The following preparations have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Krause's Phosphorits (Norman Lichty Mfg. Co.), consisting essentially of ferrous carbonate, asafetida and traces of phosphorus and claimed to cure diseases resulting from a shattered nervous system. Binz Bronchi-Lyptus (Edward G. Binz), consisting essentially of a solution containing oils of eucalyptus and peppermint, glycerin, sugar, acacia, alcohol and water, and claimed to be an efficient remedy for croup, whooping cough, sore throat, etc. Dr. Goodwin's Herbal Compaund (Dr. F. A. Goodwin), a mixture of plant material containing chiefly senna, fennel, uva-ursa and unidentified plant extractives, and sold for diseases of the stomach, liver, kidneys, nerves, bowels, bladder, etc. Dubois Pecific Pills (W. J. Baumgartner), consisting essentially of aloes, ferrous sulphate, calcium carbonate and sugar, claimed to be a reliable female tonic, etc. 4-11-44 Capsules and Injection (A. J. Benson), the capsules containing cubebs and copaiba, and the liquid, a solution of zinc sulphate and salt, sold for the treatment of gonorrhea, etc. Metzger's Catarrh Remedy and Spede Oil (Metzger Mfg. Co.), the first consisting essentially of iodid and mercuric compound, gentian, alcohol and water, and the second consisting essentially of gasoline, oil of euca-

lyptus, methyl salicylate, menthol, camphor and ether (Jour. A. M. A., March 4, 1922, p. 672).

More Misbranded Nostrums.—The following preparations have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Blummer's Herb Tea (Lincoln Chemical Works), a mixture of Alehta, licorice, couch-grass, sage, senna, elder flowers, sassafras, anise, fennel, melissa, American saffron, German chamomile, dandelion, liverwort and lungwort, sold as a blood purifier, etc. Parry's Vegetable Compound (Parry Medicine Company), consisting of alcohol, olive oil, water and flavoring, and recommended for various diseases. Hall's Catarrh Medicine (F. J. Cheney and Co.), consisting essentially of potassium iodid, plant extractives, cardamon, sugar, alcohol and water. LaDerma Vagiseptic Discs (Palestine Drug Co.), consisting essentially of common salts, a small amount of alum, sugar, starch and talc. Women's Pills (Fitzpatrick Drug Co.), consisting essentially of castile soap, alkaline carbonates and unidentified plant extractive (Jour. A. M. A., March 11, 1922, p. 751).

Our Knowledge of Vitamins.—It is generally accepted that a well-balanced diet provides the individual with such vitamins as are necessary to maintain growth and nutrition. The British Medical Journal in a leading editorial reiterates the statement that an abundant supply of vitamins exists in all fresh vegetables and that a considerable quantity occurs in milk and meat, provided the latter substances are obtained from animals fed on fresh foods. A normal adult living on an ordinary diet containing a reasonable proportion of fresh vegetables is, therefore, certain of obtaining a plentiful supply of vitamins. Of all the mass of evidence which has accumulated relative to these substances, this fact is the point of greatest importance. It is, however, very unfortunately, the one point which those commercially inclined are unwilling to recognize (Jour. A. M. A., March 11, 1922, p. 734).

Pulvane. — In a twelve-page pamphlet, sent out by the Pulvane Laboratories, Inc., Des Moines, Iowa, and purporting to deal with "The Therapy of Pulvane, an Advanced Method for the Treatment of Respiratory Diseases," we are told that Pulvane "was developed in a United States Army General Hospital by officers of the Medical Department." Pulvane is administered by inhalation, at the offices of the Pulvane Laboratories, Inc. Its "discoverer," it is declared, chanced on the method of "introducing into solution and volatilizing a certain germicide, extremely rare in its usage, because of its resistance, heretofore, to attempts to bend it to scientific will." This "rare" medicament is alpha naphthol. But since the discovery of this volatilizing method "three other ingredients of high therapeutic value have been added." It is stated that the "medical directors" will be glad to name every ingredient of Pulvane to any reputable member of the profession. Nothing is said about disclosing the amounts of the ingredients of Pulvane and hence the information offered is no more complete than that furnished for such patent med-

icines as Peruna. With regard to the claim that Pulvane was "developed in a United States Army General Hospital by officers of the Medical Department," Surgeon-General Ireland of the United States Army announces that the Medical Department of the Army had nothing whatever to do with the matter and that it thoroughly disapproves of the methods of the promoters of the concern (Jour. A. M. A., March 11, 1922, p. 750).

More Misbranded Nostrums.—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Devonia Mineral Water (Devonian Mineral Springs Co.), claimed to be a natural tonic and reconstructor, and to be indicated in chronic indigestion, constipation, rheumatism, etc. Jackson's Home Rheumatism Remedy (Mark H. Jackson), composed of aloes, licorice, cornstarch and Blaud's mass, and claimed to be a treatment, remedy and cure for gout, rheumatism, lumbago, sciatica and scropula (Jour. A. M. A., March 18, 1922, p. 834).

Warn's Epilepsy Treatment—The claims made for this nostrum are similar to those made for Maghee's Epilepsy Treatment, but they are worded more cautiously. While in the case of the Maghee preparation it is claimed that certain effects WILL be produced, the Warn Remedy Co. avers that these effects SHOULD be produced by the preparation. The A. M. A. Chemical Laboratory reports that Warn's Epilepsy Treatment consists of capsules, each containing approximately 0.06 gm. (1 grain) of phenobarbital (luminal) to which has been added some charcoal and that it differs but slightly (by absence of bismuth subnitrate) from Maghee's Epilepsy Treatment analyzed previously (Jour. A. M. A., March 18, 1922, p. 834).

The Future Independence and Progress of American Medicine in the Age of Chemistry.—The recent war brought about a realization of how dependent we had been on Germany for our most valuable drugs. However, before the war was over, American manufacturers were making adequate supplies of urgently needed drugs. In their work on war gases chemists had an example of what could be accomplished in an almost increditably short time, when facilities for research were provided on a large scale and under conditions allowing of the fullest cooperation of chemists, physicists and physicians. With the close of the war, chemists began to consider to what extent such facilities might bring about American independence in drugs. A committee appointed by the American Chemical Society has now issued a report which elucidates the subject. The report makes it clear that pharmacologic research in German universities and in privately endowed institutes are far ahead of those in the United States. Our schools of medicine and hygiene, the report continues, are largely ignoring the services which pharmacology, in close cooperation with chemists and clinicians, can render to hygiene and preventive medicine. About twenty years ago, Congress established the Hygienic Laboratory of the U. S. Public Health Service; the plan of its organization was unsurpassed by that

of any laboratory in the world; but since then Congress has failed to provide for any considerable growth of this laboratory. Enlarged and with adequate support, this laboratory could give the United States the leading place in the world in this great scientific and humanitarian endeavor toward the discovery of new drugs. If better government support of the Hygienic Laboratory cannot be secured, then a privately endowed research institute must be the goal of those who realize the vast benefits which will accrue from the proper type of research in drug therapy (Jour. A. M. A., March 18, 1922, p. 806).

The Demand for Vitamins.—Ordinary fresh foods are the simplest, cheapest and richest sources of vitamins, yet vitamin "concentrates" are being "demanded" by the public because shrewd, forward-looking "patent medicine" exploiters are using the subtle art of modern advertising to convince the public that it is in serious danger of vitamin starvation, and that the only hope lies in buying these alleged concentrates to make up a hypothetic deficiency. Advertising campaigns, such as these of the vitamins constitute a vicious circle; an artificial demand is created and then the manufacturer excuses his business on the ground that he is merely supplying a demand (Jour. A. M. A., March 18, 1922, p. 810).

Veratrum Viride in Pneumonia.—Medical opinion is averse to the routine use of viratrum viride in the treatment of uncomplicated pneumonia. Claims made for the use of veratrum viride are advanced for other drugs, none of which has borne critical investigation. The error on the part of those who make these claims is the result of inadequate control observations. Advocates of veratrum viride, aconite and venesection believe that by the depression of the circulation produced by the treatment, they may lessen the extravasation of blood into the air vesicles and to this degree lessen the involvement of the lungs. The lack of demonstrable success of venesection has led to the discarding of this once almost universally employed mode of treatment of pneumonia. It is unreasonable to expect as much or more from aconite or veratrum than from venesection (Jour. A. M. A., March 18, 1922, p. 835).

Albert Abrams, A. M., M. D., L. L. D., F. R. M. S.—Dr. Abrams has published a book on "Spondylotherapy" ("Physio-Therapy of the Spine"). Spondylotherapy is stated to concern itself "only with the excitation of the functional centers of the spinal cord." Between 1912 and 1914 Dr. Abrams gave "clinical courses" on "Spondylotherapy" in various parts of this country. More recently Dr. Abrams had advertised that he gives a "course" in "Spondylotherapy" in San Francisco. In addition to "Spondylotherapy," Dr. Abrams has also evolved what he calls the "Electronic Reactions of Abrams," which are said to make possible long-distance diagnosis, it being necessary only to send a few drops of blood taken from the patient and allowed to dry on a slide. Dr. Abrams founded and edits "Physico-Clinical Medicine," a quarterly "devoted to the study of the Electronic Reactions of Abrams . . ." What seems to be the outstanding piece of apparatus, devised or in-

vented by Dr. Abrams, of physico-clinical diagnosis and treatment is the "Oscilloclast." All one needs to do, according to Dr. Abrams, is to ascertain the "vibration rate of a drug" and then to substitute the same vibration as produced by the "Oscilloclast." More recently, Dr. Abrams has extended his observations and experiments, using what apparently is a modification of the old-fashioned pith ball suspended by a silk thread from a rubber rod. This device he calls the "Electrobioscope." If there is any scientific foundation for the marvels that Dr. Abrams so picturesquely features, the scientific world has not yet found it out. (Jour. A. M. A., March 25, 1922, p. 913.)

IMMUNIZATION AGAINST DIPHTHERIA

In reference to diphtheria, as has long been the case in the control of smallpox, the medical profession is demonstrating that its function is not alone the treatment of disease, but its prevention. For diphtheria can be prevented, just as smallpox is—and by the same means, vaccination. There are minor differences, but the principle of immunization is the same. Natural immunity to diphtheria is largely a matter of age; it is a children's disease, though not all adults are exempt. Protect the children, and you protect the community. This is done, in a measure, by the use of antitoxin, but not completely. Why should the child be allowed to take any chances at all? No one can foretell the virulence of a diphtheritic attack, and in waiting the developments a case of "sore throat" may turn out to be malignant diphtheria challenging even heroic doses of antitoxin to subdue it, or ending the life of the patient through delay and temporizing treatment.

Why not prevent all this when it can be prevented by the systematic application of the toxin-antitoxin known as diphtheria prophylactic? Every physician should take an interest in this subject, we believe, and extend, so far as his influence goes, the protective barricade against the spread of diphtheria.

The standardized toxin-antitoxin mixture is supplied in packages suitable for private and institutional practice by Parke, Davis & Co., who also offer appropriate literature to inquiring physicians.

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PROGRESS OF MEDICAL EDUCATION AT WEST VA. UNIVERSITY SINCE 1921

Read at Annual Meeting West Virginia Medical Association, Huntington, May, 1922.

By JOHN N. SIMPSON, M. D.
Morgantown

In my report to this Association at the last meeting, I told you that we would have more students applying for admission than we could accept. Our laboratories necessitated a limitation to two sections of 25 in each class. This is the first year we have ever known before the opening of school who our students were to be, their number and qualifications. The proceedure of West Virginians registering before the 15th of July was not fully known or if known, not heeded. So after our limit had been reached there were six more admitted, in order to accommodate them. We had to refuse about 50 and from the number of applications we have already had there will be more this coming year.

Notwithstanding that we have been crowded our teachers agree that we have had our most successful year from every standpoint. The student body includes 9 students with Bachelor degrees. There will be forty-nine graduates with the degree of B. S. in Medicine at our Commencement in June. This is more than a third as many as graduate from the College of Arts and Sciences.

With all their teaching the faculty have been able to publish some good original researches. In this way contributing a little to the general storehouse of medical knowledge.

In February we were visited by the Secretary of the Association of American Medical Colleges. He made a careful inspection of the school building, the library facilities, the equipment of the several laboratories, interviewed the faculty and very carefully scrutinized the credentials of each student.

Upon the basis of his report we were restored to our membership in the Association from which we had been suspended two years ago. In an interview with a local reporter he said he had found nothing to criticise but all to praise and we now rank with the best of the schools with a two year course.

In anticipation of a difficulty in locating 53 students for their Junior work I wrote the several Deans of the medical schools and their responses were very cooperative. Every one will be placed, not always in the school of his first choice, but in a good school.

An inquiry at Jefferson in February discloses that there will be 20 vacancies and at that time there had been 59 applications from 19 different schools. They have promised to accept a number of our best men. We could hardly expect each of the 27 who expressed a preference for this school to be accepted.

The reason for our being so well treated is explained by the following quotation from Dean Patterson:

"We find students admitted from your institution desirable additions to our student body. Their scholastic attainments have compared favorably with our own students and those from other medical schools admitted to advance standing at the same time. In personal characteristics I consider them above the average."

The University of Cincinnati says:

"All the students we have accepted from your college for advance standing have done better than average work, and in several instances have received very high grades."

I have no failures to report from our men finishing last June. In Cincinnati two were elected to the Alpha Omega Alpha, an honor scholarship fraternity. At Jefferson we received two honorable mentions, medicine and obstetrics. I mention this because there were some reflections made last year upon the quality of our finished products.

The Student Loan Fund which I asked of you last year was subscribed to the amount of $500, but owing probably to the forgetfulness of some of the subscribers, or the financial depression, it was not all collected and so has never become available. I could have used it very effectively in helping at least four students, had I been able to do so. Two of these men had had overseas service, but were not disabled. Their father was a minister and so could not easily carry the burden. They are doing some work that helps out and having fine intellects are able to stand the strain. One poor fellow who plays in an orchestra is barely able to pass his work. His prospects for acceptance for junior work are not flattering. With some help he could have made a creditable record.

I spoke to you last year about the difficulty of placing men whose work is little above the passing mark. Quite a number of the medical schools will only accept men in the upper third. Some specify that they must have an average of 10% above the passing grade of the school from which they are accepted. California reported a few vacancies, but non-residents must pay $500 tuition.

Last year I reported upon the favorable showing per capita cost

for our medical students. This year our budget was $50,000. There was earned from tuitions and fees $15,840. From the Student Health service, which is performed by the Professors of the School of Medicine, $9,000, a total of $24,840. If this is deducted from the budget it leaves a total cost of $25,260 for 106 students or a per capita of $240. This was only possible because we were operating at the limit and that we had a good number of non-resident students who paid $200 tuition. As students from our own state take fuller advantage of the school the cost will rise as it will exclude the non-residents.

We must have the four year course and so long as the State's medical needs can be served by classes of 50 each we can get along without a new building for instruction. So that the outlay would be for a hospital. If the State does not have the money, it would seem a logical thing to erect a hospital as a part of the Workman's Compensation scheme. Since the purpose of the act is the better care of men injured in the industries of the State. It would then be made available to other parts of the population, by those who are able to pay according to their ability, by the indigent poor, by county courts providing means for their care.

Great numbers of patients are being sent by their physicians outside the State for consultation and treatment. There should be provided by the State ample facilities for consultation, so that any physician could get what he wants at the State Medical School. Just as soon as the people find out there is something worth while they will take advantage of the opportunity. It has been the history in every State that has taken up the problem of Medical Education, if it is properly conducted the people respond and soon the hospitals are full to overflowing. This has been the history of the University of Virvinia at Charlottsville, at Iowa City and at Ann Arbor. It will be so with us.

I have been appealed to so many times by citizens from small towns and rural communities to tell them where they could get a doctor. If the young man who comes from a rural community can be educated within the State and at not too great an expense and without the glamour of the large city life he will return to his people and solve the greatest medical problem we have in our State today.

We hope that the State will not have to socialize the medical profession in order that all may get get adequate service as is done in England. This would not be a great departure from the State's taking charge of education and specifying the qualifications, work and salaries of its teachers. The larger towns and cities are over-supplied with physicians and rural communities crying for help.

We feel that our interests are your interests. It has been your help and encouragement in the past that has made our present possible and since this is small in comparison with what our profession and the people of the State deserve, we confidently anticipate your continued cooperation until we will not be ashamed of the part we are taking in medicine in the educational world.

DRIVEN OR DRIVER

Read at Annual Meeting of West Vrginia Medical Association, Huntington, May, 1922.

By J. HOWARD ANDERSON, M. D.
Marytown

"So live, that when thy summons comes to join
The innumerable caravan, ...
Thou go not, like a quarry-slave at night,
Scourged to his dungeon, ..."

Thus, in fragment, wrote the immortal William Cullen Bryant, who at the age of 18 years penned his American classic — Thanatopsis. While these lines were written with reference to approaching dissolution, why not apply them to life itself?

Sometime, somewhere, in my reading, I ran across the Antithesis —"Driven or Driver." I began to think of this in terms of myself and then in terms of our West Virginia State Medical Association, whose welfare is ever dear to my heart. I then made bold and resolved to inflict some of my musings upon this honorable organization, without laying claim to originality of thought and even, at times, of terminology, but hoping thereby to stimulate individual and collective thought and action, which might terminate beneficially to our profession within the borders of our Little Mountain State.

As I recall, the author of this antithesis "went" Caesar "one better" and divided all men into two classes —Driven or Driver. Then, delving into Biblical lore he declared The Driven are the sons of Martha "careful and troubled about many things;" while he Drivers are the sons of Mary, who "hath chosen the good part." The former are they—who, because of weak wills and fearful natures, suffer Concern to goad them on like quarry-slaves; who tremble before necessity, public opinion, and financial stress; who take Fear as their constant advisor, and Worry as their common lot; who live—

"Like one that on a lonesome road
Doth walk in fear and dread,
And having once turned round, walk on
And turns no more his head;
Because he knows a frightful fiend
Doth close behind him tread."

The latter are they—whose wills are adamant; who hold the reins and drive their work; who enthrone Reason, not Instinct, upon their every act; who permit no dictation, but command respect; whose lines fall in pleasant places; and in them you behold—

"The Monarch mind, the mystery of commanding,
The birth-hour gift, the art Napoleon
Of winning, fetteringg, moulding, welding, binding
The hearts of millions, 'til they seem as one."

The horizon of the Driven is limited to his routine duties. He suffers (figuratively speaking) from Myopia. He lacks vision. While the Driver is a man of varied task and broad vision. Did I say vision? Yes! For the secret of all great living lies in this—that one be a man of vision; not of a single vision, however, but, of a continual and increasing vision—of such an attitude of mind and temper of soul, that he is constantly seeing the things that are hidden to the great multitude of men. Miserable indeed is the man who has no vision beyond the little narrow round of daily toil; who never in the silence of the night, awed and sombered by the vast expanse of jewel-studded heavens, hears the whisperings of divinity and sees the

glory that is not of earth. Miserable, indeed, I say, although he knows it not, the man who never feels a noble discontent with what he is, an aspiration after what he ought to be; into whose life there never shines the light that hath no name in earth's vocabulary.

Solomon—that Biblical paragon of wisdom—to whom King and Queen, Prince and Princess came bearing gifts that they might drink at the fountain of his knowledge, says in Proverbs 29-18: "Where there is no vision the people perish."

Again—The Driven is the man who is content to jog along at the same old gait; who is willing to let well enough alone; who is spurred along by stern necessity; who sits around waiting for something "to turn up."

While, The Driver is the self-starter, always alert, always ready. He does not believe things just "turn up," without some real thinking and real work. Yes—I like that word "Self-starter;" for the self-starting man is just as far superior to his fellow, who is not so inclined, as the self-starting auto is over its fellow, not so equipped. And who amongst you prefer to drive an automobile not equipped with self-starting apparatus?

The venerable Dr. Gross—the greatest surgeon of his day and professor of that subject at dear old Jefferson, was once asked by a young physician if he knew of any good opening. Piercing him with his penetrating glance Dr. Gross said: "An opening! There is no such thing as an opening in the medical profession. Nature abhors an opening as she does a vacuum, and every man at all worthy of the name should do the same. He alone can drive in the wedge."

Yes—gentlemen—the difference between business and your profession is—the business man sells the labor or the goods of others; while you sell your own services, your knowledge, your skill, your judgment, your experience, in fact your personality. You, alone, can do the starting and the driving.

But further it would seem to me, that sometimes The Driven are those who have jockeyed themselves into too fast a class, and, losing in the first heat, their spirit is broken. They have been over anxious. They are unwilling to endure the long trying days of training and preparation. They swamp themselves by their towering ambition to be somebody in a day.

Thoughtlessly adopting the ideas and methods of every faddist in the profession, falling a victim of each succeeding wave of radical opinion and proceedure, they try to leap at one great bound into the lime light of popular acclaim, only to fall back and roll into the rubbish heap of discard and oblivion. They flash across the dome of public notice like an uncharted meteor across the heavens, only to glide down into the dark horizon of "Forgottenness" as speedily as they arose.

While The Drivers are the men of patient hard work and gradual steady growth, who with their eyes fixed steadily upon the ultimate goal, turn not aside to grasp the tinsel and bauble temptingly arrayed along the hard and trying route. For the truly great men in our profession have been and are, those who have not rushed into spe-

cialization, but have laboriously laid broad and deep their foundations not only in medical and surgical lore and experience, but also in academic study and social and civic interests. Taking one rung of the ladder at a time, they endeavor to improve their work in some one branch from year to year—and lo—almost unconsciously they attain the topmost round and have arrived at the very threshold of perfection in their chosen branch.

The trend of the present generation is strong for specialization. Probably 'tis well, for the subject of medicine and surgery is so large that the ordinary physician in his short span of real activity may but scratch the surface. Yet may it not be possible to let the pendulum swing so far in this direction that we may be victims of but a mirage.

The greatest tragedy of civliization is the inability of one group or age to profit by the mental, moral, and physical experiences of other groups and other ages.

Wells, the historian, says that history demonstrates that "The over-trained man, the specialized man, is the most unfortunate of men." Therefore, let us turn to history and see wherein its pages sound the tocsin of over-specialization.

At the battle of Ecnomus (256 B. C.), the greatest naval engagement of antiquity, the highly specialized, skillfully navigated, experienced oared, supposedly invincible fleet of the Carthagenians, relying on its specialized oarsmanship, went down in defeat before the Roman galleys with their crude navigating skill and inferior oarsmanship. Why? Because the Carthagenians had so specialized versatility and adaptability out of her sailors that they were unable to cope with and checkmate the Roman "corvus" — a simple device comprised of a crude draw-bridge and grappling hooks.

In turn, but a few centuries later, the powerful Roman Empire crumbled before her Northern Invaders when her yoeman and citizen defenders had gradually given place to highly specialized legionaries.

Again, in the recent European War, the highly specialized German cohorts melted before the attack of the versatile, adaptable citizen soldiers of the United States, whom the European specialists dubbed as mere tyros.

Passing to the realm of Economics, show me a more pitiable figure than a highly specialized mechanic, when the hot breath of hard times parches and withers the wide spreading tree of demand, which thrives luxuriantly in the tropical sunshine of boom time prosperity.

Thus let us pause and consider lest the Medical Profession impair its greatest usefulness by worshiping too fervently at the shrine of the great god—Specialization.

Again, The Driven is the indolent man; the lazy man; the man without ambition; the man who permits procrastination to act as the thief of his time, causing neglect of his reading, his writing, and his personal culture, thus he rusts and deteriorates professionally.

On the other hand, The Driver is he who wastes little time in indolent ease; who always has something to investigate and some employment for his spare moments, which adds freshness and interest

to his life and keeps his intellect active; whose fit motto is—"Be not satisfied to rest upon present laurels, lest they wither while you caress them." By his very acts he places his stamp of approval upon the lines—

"How dull it is to pause,
To make an end,
To rust unburnish'd not
To shine in use."

Thus we have tried to contrast the characteristic qualities of The Driven and The Driver. To what class do you belong?

Someone has said and truly said: "Man is God's finest product, and as such is capable of reaching heights, which seem to make it difficult, sometimes, to draw a sharp line of demarcation between the human and the Divine."

The glorious traditions of our profession and the wonderful accomplishments of the noble men who have followed it surely warrant us in the assumption that we have been worthy exponents of this Manhood.

The question then that confronts us is, are we as individuals and as an Association wearing with worthy dignity the mantle which departing generations have let fall upon our shoulders? Are we the versatile men; are we the alert adaptable men; are we the broad gauge self-starting men our predecessors have been? Do we interest ourselves enough in social and civic welfare?

But you say, what has this to do with our Association? Just this—As the individual, so is the organization. Our Association is no more than the aggregation of its component parts. As the spirit of Driven or Driver dominates the part, so will the whole be.

Many questions of vital importance to nation and state, such as Immigration, Compulsory Health Insurance, State Medicine, The Sheppard-Towner Maternity Bill, Appointment of Health Councils, Medical Education, etc., are constantly coming up for solution and proper disposal. Concerning these and kindred questions, the Medical Profession are best qualified to render sound council or advice, and in the settlement of which, Organized Medicine should have a deciding voice. But alas, in dealing with which, that advice is not sought; that voice is not raised, or if raised is ignored. Why unsought and ignored, may well be answered in the words of a Brooklyn physician, who has the following to say while trying to rally the opposition of the Medical Profession against certain National Legislation—

"When Presidents, Senators and Congressmen are sick to whom do they turn for advice and council and help? to the Professional Philanthropist? to the False Doctrinaire? to the Political Patronagist? NOT AT ALL; they turn, pleadingly and fearsomely, but confidently to THE DOCTOR! That's COMMON SENSE.

"When the Nation is sick with Unrest, and the Apostles of Disorder—the American Association for Labor Legislation, The Rand School, the New York League of Women Voters, the Birth Control Leagues, the Women's Trade Union League and similar vicious organizations—are germinating miscalled Public Welfare Bills, which threaten the economic independence, domestic privacy, self-reliance and self-respect of the people of this Na-

tion—to whom do Presidents, Senators and Congressmen turn? to the DOCTOR? NOT AT ALL. That's POLITICAL SENSE.

"WHY? Because, although they know in their heart of hearts that the DOCTOR, by reason of the nature of his education and training, is the best qualified Teacher in Society; and, by reason of the intimacy and sanctity of his relations with his patients, the MOST FORCEFUL TEACHER OF SOCIETY; and, by reason of his devotion and self-sacrifice, the best beloved of Society—THEY ALSO KNOW that the DOCTORS as a class, are innocuous, BECAUSE THEY HAVE NO POLITICAL PUNCH."

Now, while these words may seem harsh; may grate upon our aesthetic tastes; and we may not approve of them in their entirety. Yet, do they not harbor the germ of truth, and challenge the Medical Profession for a better explanation? Do they not make us pause and meditate as to whether or no the Medical Profession are wielding that influence in public affairs they should? and hesitate before we boldly assert that we, as a class, belong to The Drivers.

Behold—The most pressing question before us as an Association is that of Medical Education within the borders of our State. It is vital to citizenship of the State; it is vital to the Medical Profession; it is vital to the oncoming generations, who will fill our litle nitche when our brief span is ended and our activities are stilled by the ravages of Time.

West Virginia has provided, at her University, for the needs of her sons and daughters in the classics—in the Arts, in Engineering, in Pharmacy, in Dentistry, and in the Law. Has it done so in Medicine? If not, why not? Whose concern should it be? Are not the Medical Profession of the State and the State Medical Association the logical Champions of this Cause? What are we doing? Shall we sit idly by with folded hands and supine spirit, in the class of The Driven; or shall we be progressive, alert, broadgauge men with a "Political Punch" that will put over this Four Year Medical Course at our University for the boys and girls of our State? Shall we not, in this matter, enter the list of The Driver, and become a potent factor and influence for the symmetrical development of our University, and make it a school of equal opportunity for all—those seeking Medical Education as well as those following other pursuits?

But some one may say—this will be achieving the impossible, under the present economic conditions.

Is it not the mark of all great minds that they recognize nothing, which OUGHT TO BE DONE, as impossible of achievement? Confucius, amidst the mists of hoary antiquity, laid down these rules for those who would achieve greatness: "Think the inconceivable thought. Go the impossible way. Do the impossible deed." Passing down along the ages men have caught the vision of the unattainable and striving towards it have at last achieved. In the 15th century, gazing out over the far stretching waves of the Atlantic, men said—it is impossible to sail away over the rim of the world and come again. But, Columbus

pointed his galleys towards the unattainable, and lo! the impossible became possible, the world was proven a sphere, and geography was enriched by a new hemisphere, which, recently, has achieved the salvation of the Old. For generations, the most daring explorers declared the penetration of the wilds of Africa impossible. But, Livingston, spurred on by a vision, bored his way through impenetrable jungles to be awarded by hearing the deafening roar and by gazing upon the exquisite beauty of the greatest natural wonder of the world—Victoria Falls. While Cecil Rhodes, catching the vision as the life light faded from the great explorer's eyes, established the Great South African Empire, and made possible the crossing of that Dark Continent, from Egypt to the Cape, in a Pullman car. While Gen. Smut, the official head of the southern end of this benighted land, sits in the world's councils and helps to solve the age-old Irish question.

Again, the jeers of the hooting crowd gathered upon the New York housetops, were at first awed into silence and then swelled into cheers as Fulton's little steamboat pushed her nose some hundred feet against the current of the mighty Hudson.

Further, some men yet living, who as boys enjoyed the humorous cartoon in an early number of Harper's Weekly, making sport of a man talking to a hole in the wall, may now listen to concerts hundreds of miles away by means of the wireless radio telephone.

While the absurdity of Darius Green and his flying machine proved but a far-reaching vision of one of the greatest factors in winning the Great War and a forerunner of the commercial aeroplane, which is destined to change the trade routes of the world.

In view of these achievements, shall we dare to say that the establishment of a Four Year Medical Course at our University is impossible? "What man has done, man can do." If the establishment of this Four Year Medical Course OUGHT TO BE DONE, let us as an organization aspire to its accomplishment. Let us develop a political punch. Let us make the influence of our association felt. Remembering the axioms of warfare —that the offensive is the choice role; and that no offensive can be successfully conducted except with good liason and active cooperation of all the component parts—let us plant our banner and rally round it. Let us fear only fear. Let us Drive. Let us vanquish. Let us win. Let us adopt as our motto the undying words of that peerless soldier, Napoleon: "There shall be no Alps."

"Get into the thick of it,—wade in, boys!
Whatever your cherished goal;
Brace up your wills till your pulses thrill,
And you Dare—to your very soul!

"Do something more than make a noise:
Let your purpose leap into flame,
As you plunge with a cry:—I shall do or die!
Then you will be playing the Game."

DISCUSSION OF PAPERS OF DRS. SIMPSON, BUTT AND ANDERSON

Dr. A. T. Post, Clarksburg:

If there is a place on this program at all where I would like to say a word, it is here. First of all, in regard to Huntington and Charleston, and the Valley, of which I have heard so much this

morning, I want to say that I recall some very pleasing experiences myself. I remember coming through this town some years ago with a football team, and I remember that we were highly entertained.

It would please me to recite just a little history. I believe the University at Morgantown is located in the Monongahela Valley. One hundred fifty-seven years ago, or 1765, a man by the name of John Simpson (I do not know whether he was related to the man who presented the paper today, and who is the Dean of the Medical School), was the first man to locate at Clarksburg, the place from which I came to this meeting. While he was the first man to start a settlement in the vicinity of Clarksburg, one of his name was the first to start the medical school in West Virgina, which will in time be a real medical school. Another interesting fact about the Monongahela Valley is that on April 2, 1861, there was a mass meeting at Clarksburg for the purpose of organizing the State of West Virginia. Of course, we often hear it said that West Virginia was born, out of the Civil War, but there were other things that caused the people of West Virginia to desire to form a separate state. So it was that 1200 men met and started action for the State of West Virginia. In June, 1861, at Philippi, the first skirmish of the Civil War occurred. It was also known as the Philippi race, because the Confederates were so taken by surprise that it was practically a race back towards Elkins and towards the oldest town in West Virginia, Beverly. Near Beverly is another road going by Rich Mountain, on which was fought one of the decisive battles which turned the Confederates back and caused General Lee to assume the leadership of the Confederates.

On June 30, 1863, West Virginia was admitted into the Union as a State. That was fifty-nine years ago. One thing I might say in regard to Huntington. She enjoyed the first normal school and perhaps the first appropriation of the new State of West Virginia.

In 1814, while we were still a part of the State of Virginia, there was a little school located on the Monongahela River. That, I believe, would be one hundred eight years ago. That school was known as the Monongahela Academy. It was a brick structure of two rooms. Later it was torn down and a two-story brick structure erected in its place. This received some help from the State, and it drew students —they bragged of it—from fourteen different States. In 1868, soon after West Virginia became a State and was admitted to the Union, they renamed this school, and called it the West Virginia University. That was fifty-four years ago. Perhaps in the next fifty-four years we shall be talking of the wonderful medical school we have in West Virginia, which will be equal then to any in the United States. I hope that will be true.

There are many things in university life which differ from the life young men experience when they go into the larger cities of the United States, for instance, the social life, the upbuilding. The moral air in a medical school—the asso-

ciations—is such that it will knock off the rough spots. If a man goes to a medical school in a large city he not only gets the bumps knocked off, but gets some dents from which he never recovers. I remember two young men of high standing in my class, who finished in a large city and came out considerably worse morally. I believe that it is better for a young man to take a course and finish it in a university. There are things there which will develop him, athletics, etc., and he comes in contact with educated people from all over the country, and it is vastly different from going into a large city, where students are looked down upon.

Again, a doctor comes out of college and goes into a town. There is no one who has not in his power to do good or harm. The place where he gets his education, and what he gets out of it, will be either an asset or a liability to the community in which he settles. The temptations to do wrong are greater than in a small university town, and very often a young man falls by the wayside and comes back into his community to discourage everything that is right. So, while I can not say that I hope to see a four year course at the University at this time, I do hope that in the next few years we shall have a course of medicine and surgery in our State which will be second to none.

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Dr. J. R. Bloss, Huntington:

Dr. Butt has made me feel almost like the fellow up on the mountain, almost persuaded, yet I can not feel that way about it. Now, for Dr. Butt's edification, I will say that there is a dearth of physicians in some sections not very far from Huntington. As to our town, I came in about nine years ago, and I thought I was positively the last doctor needed. But since then thirty-five other men have come in, and I do not believe that one of them collected less than $2500 last year.

As to Wayne County, I got this information from a man who practiced there for years, and who carried insurance and saved up his money and did everything Dr. Butt mentioned. Wayne County has five licensed men outside of the Ceredo District, or one man to each five hundred square miles. In East Lynn there is one physician, and he has to cover 210 square miles. There are four or five unlicensed men. There is one licensed man at the county seat of Wayne County. If you take a short cut the distance is about seventeen or eighteen miles. There is not a hospital in the county. Of course, the three men in Kenova and the three men in Ceredo can take care of the towns.

Now, about the number of students at present in medical colleges. He does not say how many were first year students and how many were seniors. When I went to the University of Virginia 104 men started with me, and 42 graduated. The men who start do not always finish. Then, about the men who have to make their own way through college. We all know that in the days when diplomas were easy to get men practically educated themselves out of the medical books they could get, and when we look back and see the men who educated themselves and what wonderful things they have done, we

can not help but feel what wonderful things could be done if we make it a little easier. There is no man today, except one who is very well off, who can afford to educate his son in medicine.

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Dr. C. R. Ogden, Clarksburg:

I am very much interested in these papers, first from the standpoint of a member of the Association. I have been an admirer, as well as a personal friend, of the two men who have read these papers, and have been somewhat in touch with most of their activities and the work they are doing in their respective lines. I am in very great sympathy with Dr. Simpson and the work he is doing at the University. I was a student there myself in the days when the Medical Department was a very meager and unpretentious affair, and I have a very warm spot in my heart for the University and everything the University stands for.

The question of a four year medical school is a very serious one in my mind. I am very much pleased to hear from Dr. Simpson a concise statement of the situation as it presents itself today at Morgantown, and especially the excellent work he is doing there and the recognition he is receiving from other schools throughout the United States. But it seems to me that at this particular time it might be better for the medical profession of West Virginia to feel at least a bit contented with things as they are today, so far as our school is concerned, and that we would better have two years of good school and two years of good training rather than four years of training that might fall short of what we wish to attain. Those of you who have achieved a little in life realize how heavy the burden of taxation is. I would not cast any reflection upon the present administration, but I am told that the administration this year will cost about $12,000,000, in comparison with $5,000,000 or $6,000,000 in the past. I know that in Harrison County the taxes today are almost prohibitive and almost unbearable. So, looking at it from an economic standpoint, would it not be better perhaps to direct our efforts toward perfecting the two years' course, which is fitting our boys for higher work, than to try to install the whole course?

Now, as to the dearth of doctors in the rural districts, you will find that that is an economic question, a social question, rather than one of fitting men for the work. Young men and young women are going from the farms to the cities. The farms are being abandoned, and not only the farms, but the churches. I believe that the biggest problem that confronts West Virginia today is the good roads problem. Conditions are horrible today. Young men and young women who have spent eight or ten years preparing for the practice of medicine are not contented to stay in the rural sections, on account of the bad roads. When I was a boy I grew up in a little town that was almost perfect. We had stores, mills, blacksmith shops, and everything we needed to make us contented in that little community. Today I go back, and what do I see? It is almost abandoned. What causes it? It is because conditions there are so horrible that people

will not stay there. When I was a child it was an all day trip to get to town and back. Roads were so bad that it took all day to go a distance of ten or twelve miles and back. People can get a doctor if they have good roads. I am not here to make a good roads speech, but I believe that the good roads proposition means more to us today than trying to locate doctors in rural communities. If we had a plan by which men could prepare for the practice of medicine without so much expense, so much preliminary effort, some of these men might go back to the country, but how long would they stay? I take it for granted that two-thirds of the men here today started in the country. It is a question of economics, of better living conditions, and when you get better living conditions in the country you will get doctors to stay.

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Dr. Robert J. Reed, Wheeling:

The subject has been very ably discussed by Dr. Butt, who has taken the negative side, and by Dr. Anderson, who has taken the affirmative. That cause is fortunate which has Dr. Butt for an advocate. On the other hand, this morning Dr. Anderson has given us a very remarkable address. He is one of the most unusual men in this Association. Last year he gave us a presidential address. Every other man who had delivered a presidential address has used up all the good material he has ever had, and has never given us another. Dr. Anderson, however, this year has given us an address worthy of a president.

Going back to the argument we heard yesterday, it seems almost unanswerable. I refer also to the discussion by Dr. Ogden. (By the way, I received yesterday afternoon a number of compliments on the able presentation of the negative side of this question, which astonished me, for I had not spoken in the matter, until I remembered that I am supposed to have a double in Dr. Ogden. I never protest against this, for I think it is a compliment, he being a very attractive and handsome man. As for being given the credit of his opinions, that is a different matter, and I am going to ask Dr. Ogden in the future to be very careful about his utterances in public on disputed questions, unless he gets on the right side.)

I believe that, with Dr. Butt, the difficulty is with his premises. The premises are wrong, and no matter how ably presented and how forcible his contentions, still they do not bring conviction.

It is impossible, in the few minutes I have, to go into this subject fully, and I shall present only one or two points, and I hope that others will take up other aspects of the question.

There were over 14,000 medical students in the schools in 1920. That is not so important as to know how many graduates we had in 1921, how many in 1920, how many in 1919, and further back. Is the number of medical graduates increasing? The probability is that a large number of those inaugurated as students will fall by the way. The statistics as to graduates would be of extreme interest and profit, but we have not those before us, it seems. Is the number of graduates turned out each year meeting

the demands of the present. If so, is that number likely to meet the demands of the future? The older men in the profession are dying off. We lost seven per cent in Wheeling this year, and they have not been replaced. Those who have come in are not general practitioners, but have taken up specialties. Just there is the difficulty. So many young men who graduate will not go into general practice, but a very great many with a higher medical education, with from two to four years in hospitals, which the eastern colleges encourage them to take, make specialists, and the great problem of West Virginia is not solved. We need general practitioners. With the death rate we have, and the limited additions to the profession; the probability is that there will be a decided lack, not this year or next year, but in ten or twenty years.

Dr. Anderson referred this morning to men of vision. We must be men of vision, and not only men of vision but men of faith. We must keep our feet on the ground, to be sure, or we are not men of wisdom. But if there is to be a need in West Virginia in the far future, how shall we meet it? Other States will be in as much need of physicians as West Virginia, and shall we look to them to supply that need? We shall not receive physicians from them, and we must supply our own. How shall we get general practitioners for the rural districts and for the small towns and cities—get men who are not likely to specialize? We must get them by educating boys and men in our own State, who will naturally drift back to their own towns and communities.

I shall be deeply disappointed if we do not take at least one step toward higher medical education and adopt at least in principle the advocacy of a four year medical course, and adopt instructions to our Committee on Public Policy and Legislation that it is the sense of this Association that our legislature give it due and serious consideration.

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Dr. W. E. Vest, Huntington:

I am on the program this morning for the discussion of Dr. Anderson's paper, but while I am on my feet I want to say a word or two also about the four year medical course. I feel that this Association is under obligations to Dr. Anderson for the splendid address he has given. He has shown us definitely that we are drifting in the direction of the driven, and not in the direction of the drivers. It is up to the medical profession of the State to be drivers and not driven.

There are two or three points in Dr. Anderson's paper to which I wish to call attention. One is the tendency to rush to get into a special branch. Personally, I believe that there is too much of a tendency to go directly into a specialty. I have always thought that five years' general practice should be a desideratum for entering into a specialty. The objection to that is that the preparation already required is too long. I really believe that if we had five years' general practice, which might include the interneship, if you desire, the specialists would be a great deal better off later.

Dr. Anderson has called attention to the fact that there is not

enough political punch in the medical profession of West Virginia. Personally, I would prefer to call it pep. We haven't enough pep. We need to get behind the movements which are for the good of the populace generally and push them on.

I want to congratulate Dr. Butt upon the paper presented yesterday. He certainly made a masterly presentation of the poor side of a question. West Virginia is a self-governing State, and one of its prime concerns is the education of its citizens. We have the other departments well represented at the University of West Virginia now, and why not a four year medical course? Of course, the objection might be made that West Virginia is made up of small communities, is largely rural. But the time is coming when West Virginia will be a beehive of industry. Huntington, Charleston and Wheeling will soon be large cities.

I am heartily in favor of a four year medical course in West Virginia, and I think that the Association should certainly go on record at this meeting in favor of a four year course. As to whether there is a dearth of physicians in West Virginia, that is not so much the question, but there is certainly a poor distribution, and it will not be long before there is a definite scarcity of physicians in the State. We ought to arrange for the education of our own physicians. No wonder the boys throng to the cities. If we educate them in a small community, the chances are that they will gravitate back to the rural sections and the small towns.

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Dr. V. T. Churchman, Charleston:

I am not on the program to discuss this question, but, in my opinion, we would have provision in this State now for a four year medical school but for the medical profession of this State. When this matter was up in the last legislature I saw a great many members of the Senate and House, and I was surprised at the number of men who told me that their physicians back home were opposed to it. In my position as a member of the Council for the last six years, I know that West Virginia needs physicians in a great many of her districts. I am sorry that I did not hear Dr. Butt's paper about West Virginia's not needing more physicians. We have enough, if we could distribute them, but, as Dr. Vest says, if you educate a boy in New York you can not get him to go to a cross roads town. The time has come when the physicians must take an active part in politics. The time has been ripe for a good many years. Many physicians have been appointed to positions in this State for political reasons only, because they were politicians and could control some few votes. I have contended here for many years that we ought to take action and try to have a law passed that when the governor appoints a physician to any position he should appoint him upon recommendation from the West Virginia Medical Association. With all due respect to our present Governor and his predecessors, I know only one competent to select a physician in West Virginia to appoint to a position. Until we have a law requiring the governor to make such appoint-

ments in this way we shall have political jobs handed out. I have been on the State Health Council for a number of years, and we have tried to drive politics out of it. For four years we had no politics, absolutely. For the last year I can not say so much. I was promised by the Governor that if I would remain on the State Health Council he would keep it out of politics. I consented to it and was appointed. I am the one Democrat on the Board, and I am of as much service on the West Virginia Health Council as any of you men who have not been appointed. I want to say publicly that we have a man as State Health Commissioner who has tried in every way, shape and form he knows how to keep the State Health Department out of politics. I do not know of a better man in the State of West Virginia than our present State Health Commissioner, and I do not believe that it would be possible to get a better man. He has tried his best to keep it out of politics, but he is one man only, and it is not being kept out of politics, I want to say now. There are men i nthe Council who are trying to dictate how the appointments should be made. It is time now for us to take a hand in it. There are 1800 doctors in West Virginia, and if 1800 doctors will put their shoulders to the wheel politically, they will control. They could absolutely control the politics of this State if they would stand together. Now, let us stand together for the good of our profession and do those things which are for the good of our State, and do what is honest and fair for the medical profession of West Virginia. I have reached that stage in life when I have no axes to grind, but I want to see the medical profession of West Virginia put on the map to control the health matters of the State.

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Dr. W. S. Fulton, Wheeling:

I have been very much interested in this question of a four year medical course at our University, and was so much interested that even though this room was so hot it was almost impossible for me to stay, yet I stayed, refusing an automobile trip, and heard all these papers. I heard Dr. Anderson's paper, which we certainly all enjoyed. I heard Dr. Simpson's paper. I was afraid some of the gentlemen were really not going to find a landing place, but, in pugilistic parlance, I would say that Dr. Butt landed a solar plexus and a right to the jaw, and, in prize fight parlance, they are still down.

I feel very keenly on this question of medical education. The school from which I graduated is now extinct, and I am sorry. When I started to practice medicine I was a disgrace to the profession. To think that a man should be turned out with so little training, to practice upon an unsuspecting public, was a disgrace. What was the result? After I had been in Wheeling three months I borrowed $500 and went to New York to study. After I came back and stayed six months I went off again to New York to study. I spent from two to three months each year of my first sixteen years in study. When I think of Dr. Reed and Dr. Churchman, the highest type of medical men in West Virginia, I can not think of those men as having grad-

uated from the University of West Virginia, with the poor hospital facilities we are going to have, and occupying the position they have today.

Another point is, who is going to control these boys? Are they servants, that the faculty can take them by the back of the neck and tell them to go back and practice on the farmers, who are the best citizens of our State?

Ten years ago we had a re-organization of our medical colleges. From over two hundred we got them down to fewer than one hundred. Why? Dr. Reed said that we were going backward. The American Bar Association met a short while ago, and you remember what Elihu Root and Mr. Taft said. They wanted every man practicing law to have an arts degree before taking up the study of law. They held up the medical profession as an example. Are we going back, so that the chief of police in a West Virginia town, not having reached the fifth grade, can go to Morgantown for a year and come back and practice law? Are we coming to that?

A man before getting his doctor's degree should certainly be trained by the bedside, should have a clinical training and hospital training, so that he will be able to take care of any life placed in his hands. We certainly have not a shortage of physicians. Gentlemen, just one word before this Association acts in this matter—I want you to use your humble servant's experience in a cheap medical school that is out of existence.

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Dr. Hugh G. Nicholson, Charleston:

This problem of a four year course is back again before you this morning. Personally, I think that this Association should recommend the four year course. Dr. Fulton's college may be out of business today, but in twenty years from today the West Virginia Medical College will not be out of existence, and at that time they will be teaching a four year medical course. We need more doctors in West Virginia, particularly in the rural districts, and we shall have them as soon as we get good roads. Now, we are getting good roads, and the State University should be prepared to take care of the situation by the time the good roads are finished. I move that this Association endorse the four year course at the University, and make it a Class A medical school, so that our own prospective students will stay at home and get their diplomas.

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Dr. McClintic:

I happen to have had the experience of being a teacher in a medical school during the transformation that has taken place during the last fifteen years. Last year I was on the committee on medicine and sanitation in the Legislature. In that work we found that we received very little co-operation from the physicians throughout the State. If you had not had two or three men in the Legislature interested in the medical profession, you would now have had a board licensing chiropractors. There are several reasons why you should take an interest in politics.

Now, as to the four year medical course. I believe that Marshall

College should remain a normal school, of which it is one of the very best, but it should not be made into a university. The proposition there was to teach the last two years of medicine in the Insane Asylum. We introduced a resolution in the House which would have created a commission of three physicians, appointed by the State Medical Association, to investigate the questions as to whether we should have a medical school, where it should be located, and the advisability of creating a state hospital in which the last two years might be taught. It passed the House three times, and was defeated in the Senate three times. I inquired about the reasons why it was defeated, and the senators said that the University wanted it killed because they feared that some other place would get it.

I believe that we can have a four year medical school in West Virginia. Iowa has one, and Iowa is a small-town, rural State. They have it because they established a State hospital in which they take care of the indigent poor of the State. They also have a good many pay patients. The University of Michigan did not establish its hospital at Detroit, but at Ann Arbor, a city of about 20,000. There they established State hospitals.

A change has taken place in medical education, in the last two years of the course. The American Medical Association went on record requiring professors in the first two years to be employed on a salary for their full time. Then they required the last two years to be taught by full time men in surgery, pediatrics, etc. Now there has been a change, and the professors are required to practice medicine.

I do not see why we should not take some of the money used now to keep up hospitals in various cities of the State, and use it to establish a State hospital, where we can teach the last two years of medicine, and keep our students at home. These young men can not get their education at home now, so they drift to the cities, and those millionaire practitioners who have retired from practice to teach become their ideals and they stay in the cities. So I think we should establish a four year medical school in the State of West Virginia, and let some one decide where it should be established.

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Dr. George A. MacQueen, President:

I have heard a lot of discussion here, a lot of good discussion, but I have not heard a single answer to any of the challenges Dr. Butt made in his paper. I have not heard a single man answer Dr. Butt's question as to where a doctor is needed in West Virginia where the community will support one, whether he had been graduated from the West Virginia University or any other university. Dr. McClintic's statements, I think are excellent. We are probably spending plenty of money in this State to take care of the situation, but until we have corrected the evils we already have, why start another? Taxation in this State, gentlemen, is a thing that we doctors all have to think about if we expect to continue to live in our own homes. I can remember, since I began to come to this Association, if you

mentioned a million dollars to our legislature they would not get out until the next session, but now they are perfectly willing to listen to requests for three or four or five millions for this or that. They are running away with us. It is not the fault of men in the legislature, but the fault of organizations like this, that advocate the expenditure of money that has not been well thought out. A bill was offered in the legislature giving the medical profession a chance to support the measure. They did not want to do it. If it is done in a haphazard way, what shall we have? I do not think educating me at the West Virginia University would have sent me back to the head of the creek to stay for the rest of my days. I can not understand the operation of men's minds, like those men speaking here, who think that educating our boys in the University of West Virginia will send them back up to the head of the creek to practice. That is their logic, and we shall laugh at ourselves if we stop to think of what we are saying. Some of the best men we have in the larger cities came from the heads of these creeks, and they did not go to a large city until they left the head of the creek. Something pushed them out, or they would not have gone to any medical school. And when they are pushed out to our State University, I do not believe there is a master mind that you can employ as a teacher that will so direct their minds that they can see nothing but the road back up to the head of the creek.

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Dr. M. V. Godby:

I think that this question is of great importance to the medical profession, and it is also important to the citizenship of the entire State. There is a question in my mind as to whether or not we want to increase the number of doctors or decrease it. There are a number of States that already have second class medical colleges. Some have three or four, and they are putting out these second rate medical men who come into the medical profession. This is not a criticism, because I myself graduated from what I suppose would be a Class C medical school today.

From the standpoint of taxation, I wish to call your attention to a few vital points along that line. The total taxes collected in West Virginia amount approximately to thirty million dollars. We are spending fifteen millions for schools. It would be a good idea for us to figure just where this money is going, and why we are taxed so much at the present time, and why taxation is almost prohibitive. One-half of all the money collected in taxes is spent for schcols; $11,000,000 for roads, $3,000,000 for county and municipal purposes; the remainder for State purposes. We all know that we are very heavily taxed at the present time. I am not speaking for or against a four year medical school, but from an unbiased standpoint I bring out these facts. It is a question that certainly requires a great degree of skill and broad vision to discuss. There is one great reason for establishing a four year medical course, and that is that our boys are taking their money and going to other states and spending it there to get a medical education. It is a question if there

are not too many physicians now. Eliminating the doctors who hold positions in hospitals and for the State, the average income is about $700. That is less than a plumber or a bricklayer gets. If we lower the output we raise the standard, and if we increase the output we lower the standard. Whether or not we should increase the medical profession in the United States, rather than raise the standard, and keep away from socialistic medicine, I am not able to say, but personally I believe that socialistic medicine will destroy the medical profession, because it will drift into the so-called uniform method of treating patients. It will eliminate competition, and when we eliminate that we are certainly taking away a most vital part of its function.

* * *

Dr. Simpson, closing the discussion:

I want to say that Dr. Butt presented a very able paper yesterday. It was in answer to my paper of last year.

First of all, as to the number of physicians, we have to provide for the annual growth of the State, and for those who die and those who go into other professions. Not every man who is educated for a doctor follows that profession. It seems that we have to add about eighty doctors every year to supply the places of those who have retired or who have gone into other professions. The University at the present time is capable of taking care of fifty students a year. Every four years it would turn out fifty doctors. The plan I submitted for your consideration a year ago or two years ago called for a million dollars, but that was with the idea of having a new medical building, a hospital, and a training school for nurses. That plan included $500,000 for buildings.

Dr. Butt made a point that he wrote to the different schools and asked them their attitude toward taking West Virginia medical students, considering the fact that West Virginia is too stingy to provide for her own. Everyone who knows anything about a medical school knows that there is a certain amount of money to be spent, whether they have only half as many students as they can take or all they can take. These schools are glad to take in other people, because the cost would be just the same, and all they get in tuition would be that much ahead. Everyone who knows anything about medical education knows that it is carried on at a loss. The whole body politic has to bear the expense, if it is a public school. If it is an endowed school, the endowment has to bear it. Even if these people do take our students, it ought to lessen our self respect that we are passing the buck to some one else. West Virginia, with all her wealth, ought not to feel that she is a pauper and pass her medical education on to some one else. We might, from that viewpoint, close up the University altogether and send the students to Ohio or Virginia. But we have a certain amount of pride, and we want to make our boys loyal West Virginians, and we want to educate them to take a certain pride in our State.

Dr. McDonald: How is it that all

the lawyers in West Virginia were not educated in West Virginia?

Dr. Simpson: In answer to Dr. McDonald's question, a great many people have not yet forgotten what was called fifty years ago the "rape of Virginia." Many people think that nothing in West Virginia is good enough for them. They think that they must go south of the Alleghany Mountains and must go to Washington and Lee for law, even though it has not the standard that West Virginia has.

I might say that the man who believes in West Virginia's having other states educate her medical students is just the same as a man's taking you to the theater time after time and paying the bills, and you not having enough self respect to refuse to be treated that way.

Some states put restrictions upon whom they will take. Iowa will not receive students from outside Iowa. California does not say whom she will not receive, but says, "You will pay $500," which is as much as to say, "You are not welcome." Texas also restricts her students to the State, I believe.

A few years ago the State Pharmaceutical Association thought that the State was not doing the proper thing in the education of pharmacists. They appointed a committee and sent it to the University, and the University never hesitated a moment to establish a school, although I had spoken about it and urged it several years before. You would be surprised to know how much attention is paid to some one who comes from outside. If you have punch, gentlemen, we can get what we want.

* * *

Dr. Butt, closing the discussion:

In my town, Elkins, we have a most excellent court house, but I know that if I took a petition asking for another and went around to get signatures we could get a new one.

This thing should be considered in a strictly business sense. I am very much struck with Dr. Anderson's article. So help me God, the great thing I have in my mind is to keep us from being driven. We were driven. The most abject figure in West Virginia was the village physician twenty years ago. The American Medical Association saw it, and cut down the number. It is to keep men from rushing in that I am doing what I am doing. It is to keep us from being driven. There is not a man here who will bet a thousand dollars that the West Virginia University will furnish an appreciable number of men to the rural districts. I told you about the man in Texas who wrote, "We have hundreds of them in Texas. We have enough to supply the United States." Can you contradict those things? I told you that we have in the United States 83 medical schools—23 per cent of all the world. I told you that there are—medical schools where the tuition does not exceed $125; forty where it does not exceed $225. Is not that enough?

You say you have not the right distribution of physicians. You say that if you educate them here you can shoot them back up to the head of the creek. But most of the doctors I have known do not go back to their own communities to locate.

It seems to me that the State of West Virginia has all she can stand

now. Let us wait a while. Let us be contented with the two year course for a while, and make it the best in the United States.

* * *

Dr. Anderson, closing the discussion:

The greatest wealth that a nation or a commonwealth has is the health of its citizenship. If you have well men, if you have men who will take care of the sick, your citizens will produce more wealth. Now, the chief opposition to the medical school in this State at the present time is from an economic standpoint. Dr. Butt said that we have 14,000 medical students in the United States. That represents four years. Divide that by four, and you will have not over three thousand graduating each year to be spread all over the United States. Are three thousand men graduating each year too many, considering the constant increase of the population of the United States? Considering the men who have died in our own State this last year, and considering the number of men who have died in all the states and the number getting too old, each year, to practice medicine, does three thousand men for the whole United States seem to be an exorbitant number?

Now, Dr. Butt said name some location where physicians are needed. I think that Dr. Bloss answered that yesterday in speaking of East Lynn. The doctor who lived there, and whose health gave out and who left, said he had obtained in that community during his residence there all the requirements that Dr. Butt named. That is one instance.

During the War, on one of the aviation fields of France, when one of the airplanes was about to go up a medical officer came out and wanted to go up. His superior officer said no. He said, "It takes five or six years to train a doctor, while it takes only six months to train an aviator, and we need all the doctors we have." Let us have a little vision. Let us have a little ambition for the future. If we put off and put off and put off, how shall we get anywhere? Let us look forward to the future. Where would we be today if our predecessors and ancestors had not looked forward to the future? Where would our State have been?

We are not asking for a second or third rate medical school, but we are going to establish a first class, A-1 medical school if we have one at all. That is what we want.

* * *

Resolution introduced by Dr. Vest. Seconded and carried.

HALLUX VALGUS

Read at the Annual Meeting of West Virginia Medical Association, Huntington, May, 1922.

By J. A. GUTHRIE, M. D.
Huntington

I have selected Hallux Valgus as the subject of this paper because it, like hemorrhoids, tonsils and appendicitis, is one of the most common afflictions of our race. Very few people know that this condition can be corrected, and go through life suffering untold agonies. All of us know how a sore corn entirely unfits us for our daily tasks. The Chiropodist has been the only person that has encouraged people suffering with Hallux Valgus to have

this condition corrected. Etiology of this condition is wearing improper shoe; shoes that are too short and narrow in front. When this condition exists the distal end of the first metatarsus is adducted. The first phalanx of the big toe is adducted sometimes 40 to 50 degrees. The first phalanx of the big toe articulates with the outer side of the head of the first metatarsal. The head of the metatarsal bone makes pressure against the sides of the shoe which develops a bursitis and a bunion follows.

Palliative Treatment: The proper fitting of shoes is the most important treatment in the first stages. After a case is well developed only surgery can hope to perfect a cure. The operation consists of a resection of the head of the metatarsal bone which will allow the big toe to assume its normal position.

Preparation of the Patient: The patient is given the general routine. The day previous to the operation the foot is scrubbed in soap and water and dried and painted with tincture of iodine. A wet paste board is bandaged to the bottom of the foot and removed the following morning. This will give us a perfect mould of the bottom of the foot. General anesthesia is preferred. A semi-circular incision is employed, its central point being below or to the outer side of the metatarso phalangeal joint to avoid pressure at that point. The skin flap is dissected. The bursa is removed. For a number of years in operations of this kind the bursa has been preserved and invaginated into the joint after the latter has been resected. The only infection I have ever had in this operation followed this procedure, and I have discontinued it. It has no advantages and occasionally will produce a low grade infection.

The capsule of the joint is now opened transversely. The transverse incision gives a much larger field and makes the operation much easier. A giglee saw is slipped over the head of the metatarsal and about three-fourths of the head of bone removed. The advantage of a giglee saw is, that it cuts the bone clean and leaves no fragments. Bone scissors are now used to trim the end of the bone and all nodules are removed. Hemorrhage must be controlled. The capsule of the joint is now sutured and the skin flap closed with horse hair. A pledget of gauze is placed between the big toe and adjoining toe sufficient to hold the big toe straight. A small gauze dressing is then applied and the paste board splint bandaged to the bottom of the foot. This paste board splint may seem entirely unnecessary, but it gives the patient a great deal of comfort. The patient is kept in bed for three days. Then he begins to put the foot on the floor and in five or six days must be walking on the foot. The paste board splint is taken off on the fourth day and an old loose shoe is put on. The early use of the foot insures a perfectly flexible joint and does not interfere with the recovery of the patient. We prefer to operate upon one foot at a time. When both feet are operated upon at one sitting it entirely incapacitates the patient from ten days to two weeks. When one foot is done, he is soon able to get back to his business.

Now the things to which I wish

to draw particular attention are:

1. Removal of the bursa completely.

2. Removal of at least three-fourths of the head of the first metatarsal bone.

3. Putting a paste board splint to the bottom of the foot for a few days.

4. Getting the patient on his feet early to insure complete use of the joint.

ACUTE GONORRHOEAL EPIDIDYMITIS

Read Before the Monongalia County Medical Society

E. W. STRICKLER, M. D.

This most painful and baneful malady is so familiar to all of you that any effort on my part to reproduce the clinical picture would seem a waste of time and words.

We all know that acute gonorrhoeal epididymitis is simply the extension of a posterior urethritis to the epididymis along the course of the ejaculatory duct and vas deferens. In the vast majority of cases the extension of the disease is arrested at the tail or globus minor.

The theory of metastasis is no longer accepted. Just why the infection is almost always unilateral is not well understood, as the openings of the two ducts are equally exposed to the same source of infection. It has, however, been logically suggested that one of the ducts may be more patulous and thus offer less resistance than its fellow of the opposite side to the migration of infective products.

The cause, course, and classical symptoms of gonorrhoeal epididymitis has been fairly well understood for many centuries, but our knowledge of the pathological changes involved are indeed vague, even at the present time, consequently the treatment has been largely emperical and unsatisfactory, both as to the relief of pain and the prevention of unpleasant sequela.

For more than sixty years the treatment of acute gonorrhoeal epididymitis has occupied a borderline position between medicine and surgery with a decided preponderance on the side of a purely expectant plan of treatment.

It would seem from the literature that Pirogoff abandoned surgical intervention after a single experience with the puncture method now in vogue.

It is also noteworthy that the extensive account given in 1864 by H. Smith, of one thousand successful and satisfactory epididymotomies failed to create any interest in the surgical treatment of this condition.

It was not until the year 1906 that the idea of surgical interference was resurrected by Dr. Francis R. Hagner, of Washington, D. C. Since that time the literature has contained contributions from Eckels, Culler, Cunningham, and a number of others, all of whom are enthusiastic advocates of some form of drainage to the acutely inflamed epididymis, and each contributor has attempted to devise a less formidable operative technique than the one described by Hagner.

All the operations which have been offered as modifications or improvements of Hagner's method, seem to carry with them about all

of the objectionable features of the original. They all consist of opening the Scrotum sufficiently to deliver the testicle and epididymis entirely out of the scrotum. The next step being to evacuate all fluid contained in the tunica vaginalis, after which the inflamed epididymis is treated by numerous stabs and punctures. Lastly a rubber drain and loose gauze dressing is applied. A general anesthetic is required in all instances. If we are actuated in our efforts by the principles of Huntarian, or physiological surgery, or the teachings of Murphy, Crile, Halstead, Cushing and men of their class who think and work physiologically we will realize at once that numerous and thoughtless punctures have but little, if any regard for the tubular construction of the epididymis or the future usefulness of the structure thus abused.

With a very limited clinical experience, I trust you will not regard it as presumptuous on my part to describe a very simple procedure, which in my judgment accomplishes all that has been claimed for any operation of like nature, and that has many advantages, which are obvious and in keeping with physiological principles.

The operation which I shall attempt to describe is extremely simple, and may be done with perfect safety in the physician's office.

(Perfect surgical asepsis throughout is implied.) The junction of the epididymis with the testicle is easily defined, and from this point the infiltrated globus minor is readily located.

An incision three-fourths of an inch in length is made directly over the globus minor down to its fibrous covering. The tunica vaginalis is punctured and any fluid within the sack is allowed to escape. A small incision is then made through the fibrous covering of the globus minor, through which a blunt probe or closed haemestat is thrust with the hope and almost positive assurance of opening a small pus cavity. Two or three strands of silk-worm-gut are placed in such a way as to afford drainage to the incision in the fibrous covering. A loose gauze dressing supported by a large suspensary completes the operation. The drains may be removed in thirty-six hours, and the wound allowed to heal.

I believe this little operation should be employed in all severe cases of epididymitis whether of gonorrhoeal or traumatic origin for the following reasons:

1. The technique is simple and devoid of danger.
2. The relief of pain is instantaneous whether pus is present or not.
3. Filthy poultices and opiates are not required.
4. The duration of the disease is decidedly shortened.
5. Local anesthesia is all that is required.
6. The twenty feet of ductus epididymidis is only injured by a mere slit in its most dependent portion, and the probability of sterility is certainly decidedly lessened.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M.D., Editor.
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Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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THE HARRISON ACT

Already there has been quite a great deal of discussion in the Medical Journals concerning the various Regulations and Rules governing the Administration of the Harrison Narcotic Law. This has been caused to a very great extent by the various rules promulgated by the department entrusted with the Administration of the Law, namely, the Treasury Department.

Congressman Lester D. Volk, who represents the Tenth District of New York, and who is a graduate Physician with several years of active practice, has introduced Resolutions in the House, (House Resolution No. 258), asking for the appointment of a Committee, which shall be a Committee of fifteen, upon which shall be placed all the Physicians in the House, to investigate the narcotic situation in this country, together with the various Regulations of the Department.

There is no question but what very drastic legislation and the administration of the same is necessary in regard to the narcotic drugs.

Unfortunately there are some members of our Profession who will be guilty of selling these drugs, and in this way encourage addicts. These men should be put out of the business. We are sure that all conscientious, upright physicians heartily favor anything that will curtail their activities. It does seem, however, that hundreds of conscientious men in our profession have unwarranted hardships placed upon them because of the changing rules and regulations from time to time. It is possible, too, that sometimes a man may innocently violate the law though he be conscientiously endeavoring to comply with the spirit of it in every respect. Personally we do not feel that the inspectors in the various districts, or particularly those in West Virginia have the slightest inclination to interfere in any way with the honest or legitimate practice of medicine. It is, however, more or less of a serious matter, this administration of the Harrison Act, if Dr. Volk's statements are proven.

Each member of the State Association should write to him and secure a copy of his speech, and of House Resolution No. 258, then carefully study the question over, and if in your judgment it seems warranted, take the matter up with the Congressman from your District.

THE SCHICK TEST

As the schools re-open the question of diphtheria naturally presents itself to the physician for consideration. The advent of antitoxin in the treatment of this disease marked not only one of the greatest forward steps in modern medicine, but furnished the doctor a specific for the cure of this scourge of childhood. Within the last few years experimental work has been done which bids fair to rival in importance the curative value of antitoxin. We refer to the Schick test to determine individual susceptibility, and the use of toxin-antitoxin to render susceptible individuals immune. The technic of the Schick test is simple enough that it can be done practically anywhere. Several biological supply houses have put the test outfits on the market with complete directions for their use. The essential points in the application of the test are the use of a small needle with a properly graduated syringe, and being careful to make the injection intradermic and not hypodermic. It is probably wise to make the test on the right forearm and the control on the left. In non-immunes the injection of diphtheria toxin within the skin causes within twenty-four hours a reddened area at the site of the injection, averaging about two c. m. in diameter. As time elapses, within from five to seven days, this area becomes bronzed and gradually scales. Immunization closely approximates the procedure followed in giving typhoid vaccine. Here again the biological supply houses furnish us with toxin- antitoxin materials with directions for use. The duration of the immunity developed by the use of toxin-antitoxin has not been definitely determined, but from observations made by the Health Department of New York City, it is known to be at least five years, and some authorities believe that a permanent immunity can be conferred.

No danger whatsoever accompanies the use of toxin-antitoxin. Those who have had most experience believe that it is entirely free from danger and that almost no reaction occurs except a localized soreness at the site of the injection.

It is well for the profession to begin now to educate the laity to the value of Schicking all pupils in the public schools and immunizing all susceptibles. If this were a routine practice, within a few years diphtheria would become as rare a disease as small-pox is now. When parents understand that this is relatively a much less dangerous procedure than the small-pox vaccination, opposition should practically vanish and diphtheria be eliminated as a menace to the public schools.

W. E. V.

DEATH OF DR. CRAIG

Alexander Righter Craig, Secretary of the American Medical Association since 1911, died of uremic poisoning while on his vacation at Port Deposit, Maryland, September 2, aged 54. Dr. Craig was born in Columbia, Pa., July 31, 1868, the son of Dr. Alexander Craig and Eleanor Margaretta Righter Craig. He received his A.B. degree from Franklin and Marshall College, Pennsylvania, in 1890, the A.M. degree in 1893 and the M.D. from the Medical Department of the University of Pennsylvania in 1893. In 1920 he was granted the honorary degree of Doctor of Science by Franklin and Marshall College, his alma mater. Following his graduation in medicine Dr. Craig served as resident physician at the Philadelphia Polyclinic Hospital, 1893 to 1894. He then practiced in Philadelphia until 1895 and in Columbia, Pa., from 1895 to 1906, when he removed to Philadelphia and continued practice until 1911. At the Los Angeles Session, in 1911, he was elected Secretary of the American Medical Association; this election was the culmination of many years of service to organized medicine. He had served Pennsylvania continuously in the House of Delegates from 1903 to 1910, and had been a member and chairman of many important committees. At three different Sessions he was Chairman of the Committee on Amendments to the Constitution and By-Laws, aiding greatly in the production of the Constitution under which the Association now operates. He was also Chairman of the Committee on Reports of Officers, in 1909. Since 1911, Dr. Craig has devoted his entire time to the work of the American Medical Association. He considered his vocation in the nature of a call for service much as would a minister who had been called to a religious undertaking. He was a member of the American Academy of Medicine and president in 1912, and a member of the American Academy of Ophthalmology and Otolaryngology. Dr. Craig was active in religious and social work, serving as elder and chief clerk of the sessions of the Fourth Presbyterian Church in Chicago. Two years ago Dr. Craig underwent an operation for removal of the gallbladder following a series of severe attacks of cholecystitis. He recovered satisfactorily and returned to his work with renewed ambition. During the St. Louis Session of the Association he demonstrated an effi-

ciency in aiding the conduct of the Section Meetings and of the House of Delegates which met the unanimous commendation of all who attended the Session. His reelection at this Session to the office of Secretary was voted with enthusiasm. Following his return from St. Louis he continued his work, but had complained since August of severe attacks of gastric disturbance. On August 25 he left for his vacation at the family farm in Port Deposit. Telegrams announcing his death, September 2, were the first intimation had of his serious illness. The funeral was held at Port Deposit, Md., September 6. Dr. George E. de Schweinitz, President, represented the Association at the funeral. Dr. Craig was universally loved, a man with never a harsh word, calm, self-effacing, reticent, and withal a marvel of efficiency in his chosen work.

STOLEN NARCOTIC FORMS

In a recent regulation issued from the office of the Commissioner of Internal Revenue methods for report of stolen or lost order forms for narcotics have been rendered. If used or unused forms are stolen or lost by persons registered under the provision of the Harrison Narcotic Law, a report of the same stating the serial numbers has to be forwarded to the Commissioner of Internal Revenue at Washington, D. C. If the theft, or loss, however, includes an entire book, and the serial number is unknown, then a report is to be submitted to the Commissioner of Internal Revenue, from whom the purchase is made.

ANNOUNCEMENTS AND COMMUNICATIONS

THE GORGAS MEMORIAL FUND

At the St. Louis Annual Session the Board of Trustees reported to the House of Delegates that in response to a request received from the directors of the Gorgas Memorial Institute of Tropical and Preventive Medicine for the cooperation of the American Medical Association, the Board had taken action which resulted in the appointment of a committee, representing the American Medical Association, to act on the project. The following were appointed: Dr. George E. de Schweinitz, Philadelphia; Dr. Charles W. Richardson, Washington, D. C., and Dr. Fred B. Lund, Boston.

The House of Delegates unqualifiedly endorsed the Gorgas Memorial as a tribute to a past President of the organization and one of its most distinguished and loved members. At its recent meeting the Executive Committee of the Board of Trustees received the following statement from the committee and directed its publication.

Statement and Appeal for Cooperation

As a result of the stimulating suggestion of President Porras of Panama, it has been resolved that a fitting memorial shall mark the humanitarian service of the late Major General William C. Gorgas, and the beneficent influence of his life and work on mankind throughout the world. Following the thought of President Porras, it has further been decided that this memorial shall take the form of a scientific

institute for the study of tropical diseases and of preventive medicine.

No better place could have been selected than Panama City, the gateway between the Atlantic and the Pacific, where General Gorgas' well-planned and executed work made possible the building of the Panama Canal.

It is hardly necessary to call the attention of the medical profession to the far-reaching effects of General Gorgas' work on the welfare of the whole world, especially in tropical and semitropical climates, and in all places subject to the inroads of infectious disease.

We of the medical profession remember him as our Surgeon General during the early part of the World War. We remember his prompt recognition of the necessity of bringing into active service large numbers of physicians and surgeons from civilian life. We remember his genial and kindly nature, his high character, and his steadfast effort directed toward the organization and equipment of the Medical Corps of the Army. We remember the patriotic response. We remember him as a great sanitary officer, to whom we wish to pay a lasting tribute.

A central committee has been formed, with Admiral Braisted, retired, ex-President of the American Medical Association, as its president. The American Medical Association has appointed a committee of three to work in accord with the central committee, and through its members this appeal is made to the American medical profession.

The plan is to build at Panama an institute for the study of tropical and infectious diseases, with a hospital, laboratories. departments for research and all other facilities required in an institute of this character, erected and administered according to the most progressive, modern ideals. The Panamanian government, owing to the far-sighted, philanthropic vision of President Porras, has donated the great Santo Tomas Hospital, and also the ground on which it is proposed immediately to construct the buildings as they have been described.

In conjunction with this work in Panama, there will be established in Tuscaloosa, Ala., the Gorgas School of Sanitation for the purpose of training county health workers, sanitary engineers and public health nurses, especially educated to deal with the problems peculiar to the Southern States.

An endowment of six and one-half million dollars will be required to enable the institute to carry on the work according to the plans which have been formed.

The Republic of Panama has demonstrated its sympathetic and practical interest in this enterprise with splendid liberality. The physicians of our country, and especially the members of the American Medical Association, surely will not disregard the memory of a former President, and will seize the opportunity to make in this respect a contribution of which they will be proud.

The campaign for funds is to be international. A large response is expected from North, Central and South America, since the nations of these countries have been the chief beneficiaries of the labors of Gen-

eral Gorgas. It is fitting that his co-workers of the American medical profession should be requested to respond generously to this appeal. It is hoped that every member of the American Medical Association will make as liberal a subscription as possible. Any sum will be gratefully received. Checks should be drawn to the order of the "Gorgas Fund" and should be mailed to the American Medical Association, 535 North Dearborn Street, Chicago.

CHAS. W. RICHARDSON,
Washington, D. C.
F. B. LUND, Boston.
G. E. DE SCHWEINITZ,
Philadelphia.

CHATTANOOGA MEETING OF THE SOUTHERN MEDICAL ASSOCIATION

The Southern Medical Association will hold its sixteenth annual meeting in its birth city—Chattanooga, Tennessee, "The Dymano of Dixie," Monday, Tuesday, Wednesday and Thursday, November 13-16, 1922. Dr. Seale Harris, Birmingham, Alabama, President.

This meeting will be made up of eighteen sections and conjoint meetings as follows: Section on Medicine, Section on Pediatrics, Section on Neurology and Psychiatry, Southern Gastro-Enterological Association, Section on Radiology, Section on Dermatology, Section on Surgery, Southern States Association of Railway Surgeons, Section on Urology, Section on Orthopedic Surgery, Section on Obstetrics, Section on Eye, Ear, Nose and Throat, Section on Public Health, National Malaria Committee, Conference of Malaria Field Workers, Southern Hospital Association, Conference on Medical Education and Southern Association of Anesthetists. In these meetings every phase of medicine and surgery will be treated. The programs are unusually fine this year.

Dr. E. D. Wise, City Health Officer of Chattanooga, will deliver the Address of Welcome, which will be responded to in behalf of the Southern Medical Association by Dr. W. S. Leathers, State Health Officer of Mississippi, Jackson, Mississippi. Dr. C. C. Bass, Dean of Tulane Medical College, New Orleans, will deliver the Oration on Medicine; Dr. Hubert A. Royster, Raleigh, North Carolina, the Oration on Surgery; and Dr. S. W. Welch, State Health Officer of Alabama, Montgomery, Alabama, the Oration on Public Health.

Of unusual interest will be the joint dinner session of the Section on Surgery and the Section on Radiology Tuesday night. Dr. George W. Crile, Cleveland, Ohio, will represent the Section on Surgery, and Dr. George W. Holmes, Massachusetts General Hospital, Boston, the Section on Radiology. All physicians and surgeons are cordially invited to this dinner session.

Entertainments include a President's reception with dance on Tuesday night and a dance and get-together meeting on Wednesday night. On Tuesday and Wednesday elaborate entertainments have been provided for the wives of the physicians, including sight-seeing trips over the historic points of interest, luncheon at Signal Mountain Inn, theater parties, etc. The Chattanooga Committee are anxious for a large attendance of ladies.

For those who golf tournaments are being arranged. Chattanooga has several wonderful golf courses.

Scientific exhibits bid fair to be of unusual interest. In the health exhibits malaria control work will be featured. In connection with the scientific exhibits there is expected to be a moving picture theter at which scientific films will be featured all during the days of the meeting.

Chattanooga excels in beautiful scenery and in points of historic interest. Lookout Mountain, Signal Mountain, Missionary Ridge and the historic battle fields alone are worth a trip to Chattanooga.

The Hotel Committee promise comfortable accommodations for all who attend.

Special reduced railroad rates have been granted by all railroads on the certificate plan. The members of the Association will receive without applying for them a certificate entitling them to reduced rates. Any doctor who is a member of his state and county medical society, although not a member of the Southern Medical Association, who desires to attend this meeting can have the benefit of these reduced rates by requesting a certificate from the Association office.

STATE NEWS

NOTICE

The State Board Examination for Nurses will be held at Bluefield, Keyser, Charleston and Wheeling, October 11th, 1922. The examination commences at eight a. m.

All applications must be sent in to the Secretary at least ten days before the date of the examination. Please state definitely the extent of preliminary education of each candidate.

JESSIE A. CLARKE, R. N.
Secretary.

SECOND DISTRICT NEWS

C. H. MAXWELL, Reporter

The Monongalia County Medical Society has been quiescent for three months, but has resumed its meetings.

The President, Dr. Hardy, has sailed for Europe to take post graduate work in London, Paris and Vienna.

Dr. Arkin has gone to Vienna to do a year's work in Pathology. He has leave of absence from the University for a year.

Dr. S. J. Morris, Professor of Anatomy in the Medical School, has obtained a year's leave of absence to pursue the study of anatomy at Harvard.

The County Society has had under its auspices a monthly Tubercular Clinic. The work accomplished has been good, many people examined, and several cases of incipient tuberculosis have been found and treated. A few have been sent to tubercular sanitarias.

Our County Court failed to provide funds for a full time health unit for our county.

Many new Doctors have located with us lately.

THIRD DISTRICT NEWS

G. P. MORRISON, Reporter

Dr. W. W. Brown of Shenandoah Junction, W. Va., was taken suddenly ill a few days ago and had to be removed to Charlestown Hospital for treatment. So far his condition seems to be about the same.

Dr. H. G. Tonkins of Martins-

burg was elected Mayor of the city on the Republican ticket and has entered upon his duties.

Dr. T. K. Oates, who recently erected a three-story modern building to house a group, has about completed his personnel and expects to open a Clinic in about a week. For the present there will be six medical men in the group, consisting of Drs. T. K. Oates, surgeon, H. G. Tonkins, Urology, H. M. Glover, assistant surgeon, Wallace, heart and lungs, and X-ray and laboratory men. Dr. Hood is in charge of the laboratory.

Dr. D. T. Williams, who following his discharge from the Army was located at Great Capon, W. Va., has moved to Martinsburg, where he is in general practice.

The King's Daughters' Hosptal of Martinsburg is building an addition which will cost in the neighborhood of $25,000 and which will give them greater bed capacity, and new quarters for nurses' home, a banquet room, a laundry, etc.

Dr. G. P. Morrison of Martinsburg has just returned from Philadelphia and New York, where he attended a few Clinics at Wills-Eye Hospital and the New York Infirmary.

The regular meeting of the Eastern Panhandle Medical Society was held at Harpers Ferry, September 6th, but owing to the unavoidable absence of two men who were to read papers, this part of the program was dispensed with. Routine matters were taken up, and it was decided to hold the next meeting at Martinsburg, on the first Wednesday in December, at which time the annual election of officers for the coming year will be held.

The friends of Dr. Estalee M. Chalfant of Shinnston will be grieved to learn of the death, recently, of her mother. The sincere sympathy of the members of the State Association is extended to Dr. Chalfant in her bereavement.

FOURTH DISTRICT NEWS

W. E. VEST, Reporter

Dr. J. G. Callison of the Post Graduate Hospital staff, New York City, was a recent visitor to his sister, Mrs. L. F. Cavendish of Huntington.

Dr. Tib N. Goff of Kenova, who has been suffering from a chest trouble for some years past, has been admitted to the United States Public Health Hospital at Prescott, Arizona. Dr. Goff has not been well since he had an attack of influenza while in the United States Army in 1918.

Dr. C. R. Enslow, one of Huntington's oldest physicians, who has for a long time been ill, is still unable to return to work, although somewhat improved.

Dr. M. W. Gibbs of Bellevue, Virginia, was a recent visitor in Huntington.

Dr. Alfred D. Biggs, resident at St. Lukes Hospital, Chicago, is visiting his uncle, Mr. George N. Biggs of this city.

Dr. Ray C. Blankenship, a member of the teaching staff of the University of Wisconsin, spent a few days in Huntington recently.

Dr. Carroll A. Davis of Baltimore spent several days in Logan during the past month.

Dr. Bernard S. Clements of Matoka, W. Va., is visiting Mr. and Mrs. S. E. Cook of Huntington.

FIFTH DISTRICT NEWS

RALPH J. MALOTT, Reporter

With the completion of ten sewage connections and two septic tanks, now under construction, Matewan will be one hundred per cent sanitated as regards soil pollution. This is the result of the work inaugurated by the Full-time Health Department of Mingo County late last spring, in combatting what promised to be a serious epidemic of typhoid fever. Investigation showed at that time that the typhoid was water-borne and that both the city water supply and the private wells were contaminated, with all evidence pointing to the old insanitary pit and surface latrines, which were prevalent at the beginning of the survey.

It was found that the intake for the city water supply was located in the Tug river, not one hundred feet below the opening of the principal sewer of the town. At the request of Dr. Ralph J. Malott, Full-time County Health Officer Dr. Henshaw, State Health Commissioner Dr. Ziegler, of the Bureau of Communicable Diseases, and Mr. C. H. Young of the Division of Sanitation of the State Department of Health, made trips of inspection to Matewan, which resulted in orders to Mayor Boggs to change the sewer outlet and water intake and install a chlorinating apparatus. Both the Mayor and the Town Council cooperated in a very commendable way by carrying out these orders and passing further ordinances requiring sanitary arrangements for every home in the corporate limits. In addition, they financed four free clinics at which some two hundred fifty of the citizens were inoculated against typhoid fever.

These combined measures in conjunction with the visits of the Health Department staff to the actual typhoid cases and the educational campaign carried on simultaneously brought the impending epidemic up short.

* * *

V. W. Varmadoo, African herb doctor, until recently associated with "Doctor" John Pinks of the same profession, of Roanoke, Virginia, was arrigned recently before Justice J. L. Meeks, at Williamson, on the charge of illegally practicing medicine. He had secured a county license from the sheriff entitling him to sell his medicine. He yielded however to the insistence of one of his "patients" to make a professional call upon her at her home, during which he further yielded to her importunities and signed himself as "Dr. Varmadoo" on a sick benefit certificate, filling it out in detail as required by the health insurance company. He was fined fifty dollars and costs. This is the third conviction obtained by the special committee of Mingo County Medical Society and is the seventh illegal practitioner of medicine the committee has dealt with since its appointment early in the year. Extenuating pleas offered by the others were considered by the committee in pressing prosecutions.

* * *

Personals

Mr. and Mrs. Thomas Jackson Phelps announce the marriage of their daughter Emma Lee to Dr. Emmett W. Barton on Tuesday the fifth of September, one thousand nine hundred and twenty-two, Bluefield, West Virginia.

Dr. G. T. Conley of Williamson, recently returned from a motor trip to Toronto and other Canadian points.

Dr. Thomas R. Slayden of Williamson and Dr. J. C. Lawson of Borderland accompanied by their wives motored to Virginia Beach, Va., for their vacation.

Dr. L. F. Boland of Williamson returned recently from Boston, where he did some clinical work.

Dr. Ralph J. Malott and wife of Williamson attended the recent Pageant of Progress on Chicago's Municipal Pier, viewing the Public Health Exhibits and attending the conferences.

Dr. B. J. Read, of Red Jacket is spending his vacation at points in Virginia. Dr. Read is being relieved by Dr. R. N. Cox, formerly of St. Albans.

SIXTH DISTRICT NEWS

C. S. SMITH, H. L. GOODMAN, Reporters

Dr. George W. Johnson of McAlpin spent some time recently in Virginia visiting relatives and friends.

Dr. M. C. Banks of Raleigh is spending several weeks in Canada on a fishing trip.

Drs. A. H. Grigg and J. H. McCulloch of Beckley have returned from a ten days vacation trip to points in West Virginia and Virginia.

Drs. J. E. Coleman and A. H. Grigg of Beckley, Dr. R. D. Roller, Jr., of Charleston and Dr. Walker of Cincinnati recently visited Goshen, Va., making the trip by automobile. Dr. Coleman is interested in the possible purchase of the C. & O. tourist hotel at that place with the view of turning it into a Sanitarium.

Dr. Forrest Puckett of Beckley is in Texas where he was called by the serious illness of a brother.

Dr. M. V. Ziegler of the State Health Department was a recent visitor to Beckley where he made one of the principal addresses before the Teacher's Institute.

Dr. and Mrs. A. U. Tieche of Beckley accompanied by their children motored to Staunton, Va., and spent two weeks with the former's parents.

Dr. Goodrich, who has been in Beckley several months, associated with Dr. Coleman in doing X-Ray work, left recently for Oregon where he has accepted a similar position.

Dr. B. W. Eakin of Tams has returned from a vacation to his old home in the Northern part of the State.

Dr. and Mrs. W. W. Hume have returned from a vacation trip to points in Virginia.

Dr. Grissinger of Mt. Hope will leave October 1st for New Orleans where he will take a post-graduate course in Tulane for several months and at the expiration of his course he will locate in Charleston.

Dr. and Mrs. E. E. Jones of Mt. Hope have returned from a motor trip to Cleveland, Niagara Falls, New York City, Philadelphia and Roanoke.

Dr. L. J. Evans of Layland is away on his vacation for three weeks and Dr. Gilman R. Davis of Charleston is relieving him while away.

Dr. C. W. Lemon of Claremont is in Virginia on account of the serious sickness of his mother, who is not expected to recover. Dr. J. E. Robins, Jr., is doing Dr. Lemon's prac-

tice while away.

Dr. W. B. Baker, formerly of McKendree, is located at Kilsythe, W. Va.

Fayette County Medical Society will meet at Coal Valley Hospital in October.

Dr. W. D. Lewis of Prince, W. Va., was shot through the neck on last Sunday night by some unknown person while coming down Piney Creek on his wheel, but without any serious results.

PHYSICIANS IN GERMANY SEEK PACT WITH AMERICAN SURGEONS TO RENEW MEDICAL SOCIETY MEMBERSHIP

That German physicians are attempting to force the restoration to the old standing of German physicians who were expelled from American medical societies during the war and that they are attempting to have American surgeons sign agreements that they will assist them to attain this objective, is the intelligence brought back to Cincinnati yesterday by Dr. H. H. Hines, 442 Ludlow avenue, Clifton, on his return from a clinical tour abroad.

Dr. Hines, with 19 other physicians and surgeons from different parts of the United States, made a tour of European clinics under the auspices of the American College except in Germany they were treated with the greatest courtesy, Dr. Hines said.

"Our party had been invited to witness an unusual operation at the clinic of Dr. Sauerbruck, at Munich, Germany, and we had arranged to attend the operation, for Dr. Sauerbruck is a German physician of note," Dr. Hines said. "Everything went along smoothly until we were ready to enter the operating room.

"At this juncture we were told that we would not be permitted to see Dr. Sauerbruck at work unless we would sign an agreement to use our influence in America to have all German physicians restored to their former standing. We refused to do this, and left the hospital at once. We felt the experience keenly.

"We had the same experience at a hospital in Berlin, just prior to this. Finding that this was the attitude of the German physicians towards us, we left the country and did not attempt to witness any more operations. We learned that a young physician from the New England States, who was making a similar tour of the European clinics, had been accorded the same treatment at a place he attempted to visit.

"The German people entertain feelings of resentment toward Americans. They are very bitter for they believe the United States caused them to lose the war.

"Since the war, the German physicians are not being invited to this country as they were in the past and they resent this. Not one of the physicians of that country is being invited to the American College of Surgery Convention to be held soon in the East. Apparently, the Germans believe that by enlisting the aid of Amreicans visiting that country they can attain their old standing."

The tour took the American group into several of the most prominent clinics and hospitals in Europe. Among the cities visited

were Edinburgh, Glasgow, London, Paris, Berne and Rome where operations by the most noted surgeons of Europe were witnessed by the tourists.—Cincinnati Enquirer, September 4, 1922.

COUNTY SOCIETY REPORTS

March 23, 1922.

The regular meeting of the Cabell County Medical Society was held in the assembly hall of the Frederick Hotel. Meeting called to order by the president at 8:30 p. m.

Dr. Belcher and Dr. Gibson, whose applications for membership had been passed by the censors in accordance with the by-laws, were made members by a motion of Dr. Swezey to that effect.

Dr. Fitch reports no meeting of the finance committee.

Dr. Fitch reported a case as follows: Female age 65 years. Was called to see her and found her to be almost suffocated, coughing up large amount of frowthy mucous and using all the muscles to keep up respirations. Hypodermics of Nitroglycerine, strychnin and digitalin were followed by 1/150 of atropine and ¼ grain morphine soon relieved the severity of the symptoms. The chest presented rales all over and there seemed to be a hypostatic pneumonia present. The patient was found to be well the next day with apparently no edema or rales present. Dr. Fitch says he thinks the trouble arose from a large meal of boiled ham eaten just before retiring.

Dr. Bloss reported a case of chronic appendicitis, pus tube and perineal laceration that was operated on at the Huntington General Hospital. The patient did extremely well until the ninth day then began to run a temperature; seemed to have influenza with a bronchopneumonia. A blood count showed a high percentage of leucocytes but no possible pus cavity could be located. Finally the bowels refused to act and on rectal examination a large mass was felt on the posterior surface of the uterus. A second operation revealed a large pocket of pus between the sigmoid and uterus. The bowel was so constricted by adhesions that no action could be had. Dr. Bloss was at a loss to explain how this condition came about.

Dr. I. W. Taylor reported a case of ruptured appendix in a 5 months pregnant woman. After operation she miscarried twins. The mother is doing very nicely but the twins lived only a few hours. This brought up a discussion of the stability of pregnancy under surgical proceedures. Dr. Hicks states that in his experience about 75 to 80 percent of cases operated will miscarry. He adds that the thing to avoid is handling the ovaries. Dr. Rader thinks the patient is more likely to miscarry in the later months of pregnancy. Dr. Bloss has operated 5 cases all of which miscarried. Dr. Belcher says the stability of pregnancy depends on whether the operation is extra or intra-dominal. He has removed a kidney with no bad results.

Dr. Rader reports a case of puerperal convulsions in which he did a caeserian section and the mother and child are both doing well. Dr. Hicks thinks that is the method of choice in such cases providing the lower route has been tried first.

Dr. Bloss brought to notice a re-

port in the Herald-Dispatch some time ago, stating that three patients in a Wisconsin hospital had died from the taking of serums. Dr. Hodges has written to the hospital and found the true cause of death to have been syphilis and pneumonia, all the patients had been having 606 and the reports of serum treatments came from that. A heated discussion followed, everyone present expressing some idea as to whether the paper should be made to correct the statemnt. With th final result of a motion by Dr. Hicks to give Dr. Hodges a rising vote of thanks for his trouble in getting the information from the Wisconsin hospital and to drop the matter and that no part of this discussion be given to the paper. The motion passed.

Dr. Cronin makes a motion that a committee on publicity be appointed, and that they be given power to reply to such statements in the papers that might be misleading to the public. The motion passed and the committee was appointed. Committee on Publicity: Dr. Fitch, Dr. Cronin, Dr. Swezey.

Dr. Biern moves that the meeting place of the society be changed and after some discussion by Dr. Vinson, Dr. Rader, Dr. Biern, Dr. Hunter and Dr. Fitch the motion was lost. The points brought out in the discussion were that the Frederick Hotel management had been very nice in the past and we should not leave them as if dissatisfied now. It was the opinion of those present, however, that the society would do well to meet in other places at intervals, but keep the Frederick as the official meeting place.

Dr. Vinson moved that we send Dr. Pepper some flowers with kindest regards and hoping for his speedy recovery. Motion passed.

Adjourned.

Members present: Doctors Vinson, Hodges, Fitch, Rader, Hubbard, Belcher, Hicks, Swezey, Kessler, Biern, Hunter, Beckner, Taylor, Adkins, Willis, Cronin, Bloss and Swann.

W. C. SWANN, Sec'y.

June 8th, 1922.

Regular meeting of the society held in the Frederick Hotel, meeting called to order at 8:30 p. m. by the president, Dr. Bloss.

Dr. Bloss presented a bill for telegrams amounting to $13.39. It was moved by Dr. C. F. Hicks, seconded by Dr. A. K. Kessler that the bill be allowed. Passed.

Dr. I. C. Hicks moves, seconded by Dr. Kessler, that the rules be suspended and Dr. Mackenzie be restored to membership. Passed.

Dr. F. C. Hodges presented a paper, "Some Points on Examination of Urines." The discussion was opened by Dr. Bobbitt followed by Drs. Hubbard, Hunter and Belcher, the discussion was then closed by Dr. Hodges. It proved to be an interesting and highly instructive paper.

Dr. Swezey reports that we cannot secure the Elks Club for our weekly luncheons.

Dr. Bloss asks that we guard our narcotic order blanks well, as he has been informed by Mr. Graves, the internal revenue agent, that the forms are being stolen.

Dr. Kessler brings up the matter of a member aiding someone to bring suit against another member for malpractice. It was reported

that a law was passed at the last State meeting in Charleston, dealing with this matter, the penalty for such action being expulsion.

Dr. Kessler says he knows of such action and our president requests that charges be brought in the correct form.

After some discussion it was moved by Dr. Hubbard, seconded by Dr. Bobbitt, that the society incorporate as a scientific society. Passed.

It was moved by Dr. Fitch and seconded by Dr. I. C. Hicks, that we confer the honor of permanent honorary membership on Dr. C. R. Enslow and Dr. E. S. Buffington. Motion carried unanimously. Secretary ordered to report the same to the two members.

Members present: Drs. Bobbitt, Matthews, Rudderman, Swezey, Hodges, Martin, Kessler (A. K.), Mackenzie, C. F. Hicks, I. C. Hicks, Belcher, Cronin, Wilkinson, Willis, Beckner, Hume, Hunter, Adkins, Hubbard, Watts, Fitch, Pickering, I. W. Taylor, Swann and Bloss.

July 27, 1922.

Special meeting of the Cabell County Medical Society at Hotel Frederick, 8:30 p. m.

The application of Dr. W. D. Stewart was presented, properly endorsed and passed by the board of censors. Dr. Gerlach's motion, seconded by Dr. Vest, that the rules be suspended and Dr. Stewart be admitted to membership was passed.

Dr. Bloss reports that the chief of police has requested the members to have their cars marked with the emblem of the A. M. A. It was moved by Dr. Gerlach and seconded by Dr. Yost, for the society to order 100 emblems made up, to be sold to the members at $1.50 each.

Dr. Vest presented a letter from Dr. Clyde H. Scott, who is in prison, asking the society to endorse his parole.

The question was discussed by each and every member present and the consensus of opinion was that as Dr. Scott has never been a member of the Cabell County Medical Society we cannot endorse a pardon in the name of the society.

Members present: Drs. Vest, Belcher, Malcolm, Gerlach, Swezey, Hodges, Lyons, Yost, Beckner, Hubbard, Cronin, Bloss and Swann.

The Mercer County Medical Society held its regular monthly meeting at Oak Grove Inn on the Bluefield-Princeton oad, August 24th, 1922.

Mrs. C. H. Strum served us to a good old-fashioned country supper and the many doctors, wives, sweethearts and friends enjoyed it to the utmost.

The society convened around the table on the porch about 8 o'clock p. m., and as the president and vice presidents were not present Dr. O. S. Hare was elected by the society as temporary president for the evening.

As. Dr. Chappy Williamson was not present his paper on "Advantages Gained by Cooperation Between Physicians and Pharmacists" was read by the Secretary. This paper caused a wide discussion by the following Doctors: Vass, Wallingford, Thornton and Hare, and two visitors, Drs. Lester of Bluefield and Remsburg of Roanoke, Va., with a result that Dr. Williamson

was extended a vote of thanks from the society for writing us such an interesting paper.

Dr. A. H. Hoge read us a very well prepared paper on the Treatment of Pneumonia, showing that the Doctor has given this subject a great deal of study.

Dr. Hare being compelled to leave Dr. Vass was chosen to fill the chair.

Dr. Hoge's paper was discussed by the following Doctors: Kirk, Scott, Wallingford, Ira Smith, Rixey, and Carl Smith, and closed by himself.

The censors being absent Drs. B. W. Bird and Wallingford were appointed censors for the evening, they reporting favorably on the applications of Dr. M. S. Duling, Princeton, W. Va., and Dr. W. L. Hunter, Trelee, W. Va., who were then duly elected members of this society.

Adjourned at 10:00 p. m.

H. G. STEELE, Secretary.

MEDICINE AND SURGERY

CHRONIC APPENDICITIS

While surgery is the accepted treatment, the results, John A. Lichty, Pittsburgh (Journal A. M. A., Sept. 9, 1922), says, are frequently unsatisfactory. The comparative satisfactory results following operation for acute appendicitis are convincing evidence of the necessity for a more careful study of the more or less acute conditions of the abdomen. Prevention of chronic appendicitis is easier than cure. Hospital statistics bearing on the operative results of chronic appendicitis are unreliable, as the recovery from the operation is considered as synonymous with a cure. In certain cases a course of medical treatment is necessary before a cure is realized. In other cases, surgery may contraindicated even though medical treatment affords only an approximate cure.

PLUMERIN

This paper by Edwin C. White, Justina H. Hill, Joseph Earle Moore and Hugh H. Young, Baltimore (Journal A. M. A., Sept. 9, 1922), deals with a new soluble mercurial drug of low toxicity and of remarkably nonirritating character when injected intravenously. The complete name chemical name—hydroxymercuriflourescein—has been shortened to flumerin. This drug is said to be effective in eradicating experimental syphilis in rabbits in doses which are well tolerated. Even in large doses, it causes little or no clinical injury to the kidneys of animals. In ninety-six human cases, definite proof of its value as an antisyphilitic drug has been given. Doses containing from eight to twenty times the amount of mercury present in the therapeutic dose of other mercurial drugs commonly used intravenously have been given with impunity, and the maximum dose which may be employed serially in the human being has not yet been determined. The therapeutic effect of the drug has been shown in primary, secondary and tertiary syphilis by the resolution of lesions and the reversal of positive blood Wassermann reactions. The number of cases treated is sufficient to demonstrate that this mercurial is of value, but is too small to permit the allocation of the drug to a definite place in the therapy of syphilis.

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VOL. XVII—No. 5 HUNTINGTON, W. VA. NOVEMBER, 1922

THE VALUE OF CYSTOSCOPY AND RADIOGRAPHY COMBINED IN THE DIAGNOSIS OF DISEASES OF THE URINARY TRACT.

Read at Annual Meeting West Virginia Medical Association, Huntington, May, 1922.

By DRS. OLIVER P. BARKER and
R. H. BOICE, Parkersburg

Through the combined efforts on part of the Urologist and the Radiologist lesions of the Urinary tract have been placed on a much higher scale from a diagnostic standpoint within the last few years than ever before.

Through the recent work of Brasch, Geraghty, Burns and others with collargol Thorium and solutions of Bromide, the kidney pelvis, ureter and as well the bladder can be definitely outlined and relative changes in pathological conditions be fully appreciated. While the X-Ray negative gives us ideas that are well established, one cannot depend on findings from this alone. The data obtained through ureteral catheterization and functional test in combination with radiographic data make the examination complete.

In other words it is necessary for both the Urologist and the Roentgenologist to work together. Up until the time I had the assistance of a good Roentgenologist I was at a loss to know what to do. It is necessary that the Cystoscopic room be located so that a patient may be moved to the X-Ray Laboratory without difficulty or better still have the tube placed in the cystoscopic room.

In presenting these few negatives to you we are claiming no originality in this work nor are we presenting anything new. Our object being to call your attention to some problems that confront us almost every day and a manner by which a definite diagnosis can be arrived at.

Plate No. 1. Dr. S. Male, age

37. Ocp. Physician. Patient was referred to me with symptoms of ureteral colic with a provisional diagnosis of ureteral stone. The only thing of importance in his history was that he had had gonorrhoea about eight years previous. This negative is entirely normal. The catheters pass well up to each kidney and a functional test done at the time shows each kidney to be normal. A further examination disclosed a chronic prostatitis which yielded readily to treatment.

Case No. 2. Male, age 26. Occupation, mechanic. Was referred to me following two operations for relief of his symptoms. An appendectomy and drainage of the gall bladder had been done and still his symptoms persisted. He was free from pain for about three weeks following the appendectomy when he was again taken with an attack suddenly, closely resembling gall stone colic. The gall bladder was opened and drained. Three weeks following this operation he was seized one night with a pain in his right side which radiated down the course of the ureter into the scrotal region, requiring a liberal dose of morphia to relieve the same. I saw him a few days following this attack.

This picture shows the right kidney pelvis injected with Thorium. Notice the angle the ureter makes in leaving the pelvis. I might add here that I produced the exact pain by this filling of the kidney pelvis under the gravity method. The urine from this side contained a baccillus. This pelvis was washed out at intervals of ten days to two weeks and a small amount of Silver Nitrate solution injected. An operation was advised to fix the kidney but was refused and a support was advised which had the last time I talked to him relieved his pain and he was able to work.

Case 3. Female, age 36. Has had attacks of pain for several years. For the past year has been treated for Neurasthenia. The negative shows a calculus in the kidney. The urine obtained through the ureteral catheter shows a high degree of infection and the Pthalein output is very low on the affected side. She was operated on in Philadelphia within a month after I made the diagnosis of Renal calculus and I am told six hours after the operation developed a suppression of urine. Under skilled care her condition improved and she was able within a few weeks to return home and is now well.

Case No. 4. Male, age 62, a farmer. Referred to me with a diagnosis of Ureteral calculus, bilateral. This is a most interesting case and especially so as he brought with him an X-Ray negative which showed two shadows in the bladder region and in view of the fact that he had been suffering for some time with colicky pains, frequency of urination, pyuria, etc., a diagnosis of ureteral calculus had been made. Here is where I want to call your attention to the fact that a diagnosis cannot always be made by means of the X-Ray and the clinical signs on part of the patient. The two shadows that were present in the original plate show in this one. You will notice that they are well outside the ureters and are in all probability calcified glands or phleboliths. In this picture as you will see the catheter enters the ure-

ter only a very short distance. The Thorium has penetrated the ureter well up and shows the dilated condition of the same from the stricture in the lower portion.

The next time I had the patient on the table, which was about two weeks following this, I succeeded in getting a solid ureteral bougie through the stricture and later a catheter, through which I treated the infection with a solution of Silver Nitrate. I also passed several wax tipped bougies through this stricture and when I had finished with him I was able to pass a No. 7 Ureteral catheter through with ease. This patient was treated during the summer of 1921 and when I saw him last, which was a few weeks ago, he told me that he had not had a return of his symptoms and his urine was entirely clear. I might say that the cystoscope was left in place in this case as the catheter went in such a short distance that I was afraid of displacing the same.

Case No. 5. Female, age 42. This patient came to me for examination due to the fact she had been passing cloudy urine for more than four years. Of recent she had been compelled to void often. I made the usual preliminary examination and found that her urine contained a large number of pus cells, some red blood cells and was loaded with baccilli. It is a rule of mine but not an original one and probably followed by many of you as well, to regard a cystitis of long standing to be fed by an infection in some other part of the urinary tract. This patient had a cystitis and as well complained of considerable soreness and pain in her back. She had at no time a definite colic but had been diagnosed as appendicitis and had been operated on as well as curetted. The picture shows a kidney containing calculi and a functional test done following ureteral catheterization shows the output from this side to be very low. I might add here that the delay in making the diagnosis has no doubt been responsible for this low Pthalein output. The Pthalein output is so low that it will be necessary to do a Nephrectomy for the relief of this condition as we are already dealing with a well marked Pyo-Nephrosis.

Case 6. Male, age 45. Occupation, laborer. I saw this patient in consultation with one of my friends. He had been transferred from his room to the Surgical Ward in the City Hospital. At the time I saw him he was carrying a temperature of 103. His pulse was proportionately as rapid. He had three days previous taken suddenly ill with a chill and at this time was very much exhausted. Following this chill he developed a very severe pain which required morphia to relieve the same. His urine contained a quantity of pus and many organisms. The X-Ray plate shows the kidney to contain a number of calculi. This patient was not operated on at once, which is my rule. I never operate on a case of this kind until I have investigated further. A double ureteral catheterization was done and his function from each side obtained as well as a careful microscopical examination of the urine from each kidney made. The functional output from the side

supposedly to be unaffected, but the side which gave him so much pain, showed a markedly reduced Pthalein output and the urine a large number of organisms.

This patient remained in bed for a period of about three weeks and treated by large quantities of water and alkalies. At the end of this time he was again cystoscoped and a catheter passed up the ureter. The kidney pelvis was washed out with sterile water followed by a solution of silver. This was repeated at two week intervals. His illness began in November and his kidney was not opened until the following February. He made a prompt and uninterrupted recovery.

Case 8. Female, age 54. This shows a renal calculus. The functional test of this kidney is very good and all that is necessary is the removal of the stone. Up to this time she has not consented to operation. She was operated on eight years ago previous, a hysterectomy having been done.

Case No. 9. Female, age 34; married, one child. This was one of the most typical cases of pyelitis that I have ever seen. I saw her one evening with a temperature of 103 which was preceded by a chill. I placed her in the hospital and within a few days I cystoscoped her. In cases of pyelitis the pelvis of the kidney affected does not always give you the true size so far as the quantity of fluid you are able to let flow into the same. They are sensitive and a spasm is very liable to occur, which causes pain. This case was treated by means of lavage of the pelvis with sterile water and the use of silver nitrate and relieved. The condition had been in existence for two years. Vaccines had been used without success and she had been treated with various drugs.

Case No. 10. Male, age 82. By occupation a Stone Mason. The picture shows a bladder filled with calculi. Fifteen in number. He was passing a catheter on himself every twenty minutes night and day when he first came to me, withdrawing each time a small quantity of very bloody urine.

His bladder was opened under gas oxygen anesthesia, the stones removed and drained for three weeks. The prostrate was then removed through the same incision and after remaining in the hospital altogether for about seven weeks he was able to return home. He was able to urinate naturally, had perfect control of his urine and voided not oftener than three times during the night. There are times he goes through the night voiding only once.

Case 11. Female, age 46. Married and the mother of four children. This is an interesting case for here we see the shadow of a very small kidney which is filled with calculi and on the other side a very large kidney. The cystoscopic examination and functional test of each kidney separately shows the output of the affected side to be less than seven percent for a period of thirty minutes while the unaffected side is more than forty per cent. The time of appearance of the affected side was practically normal. I made a diagnosis of infantile type of kidney with multiple calculi. This was made through the findings of the X-Ray and the functional test. A nephrectomy

was done, the diagnosis proved, and the patient made a prompt and uninterrupted recovery.

Case 12. Male, age 43, laborer. This is a very interesting case. He has had a haematuria for eleven years. Part of the time he has been free from the bleeding, but for the last two years it has been almost constant. His Pthalein output from the side showing the dilated ureter is somewhat lowered, but neither side shows any infection. I have not had an opportunity to study this case carefully enough to arrive at a final diagnosis, but I am under the impression that we are here dealing with a stricture. The bleeding is coming from this side and I shall make every effort to get a catheter through this side and treat the kidney with injections of Silver Nitrate.

POLLAKIURIA

Read at Annual Meeting West Virginia Medical Association, Huntington, May, 1922.

By WILLIAM S. ROBERTSON, M. D.
Charleston, W. Va.

The act of micturition occurs normally with a frequency of three to five times in the waking hours and with no disturbance of sleep. Any increase beyond this number is an excessive frequency, or pollakiuria. Other terms which may well be borne in mind in this connection are: Polyuria, an increased amount of urine; enuresis, an involuntary emptying of the bladder; incontinence, a constant dribbling; dysuria, difficulty in voiding; tenesmus or strangury, painful urination, generally at the completion of the act. Pollakiuria may accompany any or all of these symptoms.

One writer asserts that, "A large proportion—perhaps a majority—of women who seek medical advice have some urinary disturbance, usually a frequentcy, either of slight degree or of such severity as to be the prime cause of consulting the physician." From another source we read that, "Contrary to the general medical opinion pollakiuria is nearly as common in men as in women." If these statements are true, pollakiuria is, without doubt, a most commonly encountered symptom, and not only accompanies diseases of the urinary system, but is also dependent in many instances upon other causes.

Nothing is more prosaic than lengthy tabulations of causative factors, percentages, etc. However, it has been thought advisable in view of the large number of conditions which are responsible for pollakiuria in one way or another, to submit for your consideration, enough of these causes to stress this point: pollakiuria is a symptom met with in such a wide variety of conditions that its significance is not always a simple matter to determine. The following table contains enough of these conditions to demonstrate the truth of this contention:

1—Pollakiuria with no definite pathology. Changes of temperature; mental emotions, such as fear, anxiety and excitement; dietetic influences, condiments, alcohol, excessive quantities of fluid.

2—Pollakiuria dependent upon diseases of the central nervous system and upon other nervous influences with or without a definite physical basis. Tumors of brain,

tabes, lateral sclerosis; purely reflex or neurotic frequency, seen in conditions as varicocele and refractive errors; frequency seen in hysteria, neurasthenia and hypochrondriasis.

3—Pollakiuria dependent upon constitutional diseases. Disturbances of the internal secretions; diseases of metabolism such as diabetes insipidus and mellitus; urinary changes from faulty metabolism one sees as indicanuria, oxaluria, uricacidemia.

4—Pollakiuria dependent on pathology of the urinary tract. Kidney: interstitial nephritis, any infection of parenchyma of pelvis, any neoplasm, perinephritis, calculus or misplacement; ureter: any infection, obstruction, kink, stricture, calculus or neoplasm; bladder: infections, tumors, foreign bodies, interstitial cystitis, (submucous or Hunner's ulcer), diverticulum, calculus, contracted bladder; urethra: anterior and posterior urethritis, veru-montanitis, congestion from excessive venery, stricture, papilloma, phimosis, etc.

5—Pollakiuria dependent on pathology of organs more or less adjacent to the urinary tract: Seminal vesiculitis, prostatis, benign hypertrophy, malignancy of prostate, diseases of the lower bowel, diseases and prolapse of the female generative organ, any growth or exudate that encroaches upon the bladder space.

With this recitation it is readily appreciated that all cases of excessive frequency are by no means dependent on leasions of the bladder or even of the urinary system. It is also quite evident that any treatment administered for the relief of this symptom must be directed to the removal of the cause of each particular case and must be adapted in each instance to special indications.

In demonstrating the bearing that diseases of remote organs may have in the causation of urinary frequency, one observer reports a series of 1500 cases of refractive errors, in which 316, or about 20%, presented pollakiuria. Of these 65% recovered or were greatly improved with the correction of the refractive error. He therefore concludes that this symptom is in a large percentage of cases, a neurosis.

In reviewing 3,000 unselected genito-urinary cases to determine the causes of pollakiuria, another concludes that urethritis stands first as a cause of frequency. As over 50% of his reported cases were of Neisserian infection, this figure is doubtless correct for his series.

We have from Bugbee, who has given us a most valuable contribution to this subject, an analysis of 1,000 cases of pollakiuria in women with the following percentages of principle causes: Caruncle, 1%; diabetes, 1%; tumors of various kinds, 2%; stricture of the urethra, 5%; pressure on bladder, 6%; calculus, 7%; cystocele, 10%; pyelonephritis, 10%; urethritis and trigonitis, 30%; causes undetermined, which were classed as neuroses, 3%. The author is of the opinion that this percentage of neuroses (3%) is too high. While almost all observers agree that there is a condition which must be designated as a neurotic bladder, those who use the cystoscope routinely insist on this point, every possible factor must be

previously eliminated before diagnosis of neurosis is admitted.

From the fact that urinary symptoms are so often misleading and inconspicuous, there is found a reluctancy among those whose interest is centered in urologic study to venture an opinion in the presence of insufficient data. Experience in urology will justify this attitude for in no field of medicine are avoidable mistakes more frequently made, for the reason that patients do not have the benefit of diagnostic procedures commonly employed by every urologist. Pollakiuria is too often interpreted as significant of disease of the urinary bladder and the diagnoses "cystitis, bladder trouble, weak kidneys" are given all too glibly as an explanation of excessive frequency. Such diagnoses are a reproach to the profession and are the result of a failure to realize that even a slight urinary frequency may be the first indication of a serious pathology.

There are five symptoms occurring either singly or in any combination, that point frankly to urologic pathology: pyuria, haematuria, pain, tumor and disturbance of urination, the latter appearing most commonly as an excessive frequency. Few departures from the normal in the urinary tract will fail to exhibit pollakiuria at some time, and further, it is the usual symptom appearing if the urinary system is influenced by pathology elsewhere. Pyuria, haematuria and tumor may be overlooked by the hurried examiner, pain may be attributed to disease of some other organ, but excessive frequency focuses the attention primarily to the urinary tract—particularly to the bladder—and compels a diagnosis in harmony with the symptom. The easiest answer, one that satisfies the patient and all too often the medical attendant, is "Cystitis."

Urologists have proved conclusively that we very rarely, if ever, have a primary or uncomplicated cystitis. Among them, cystitis as a diagnosis has been relegated to oblivion along with such nomenclature as rheumatism, indigestion, dyspepsia," etc., terms which in the light of modern medicine, have been generally abandoned by the profession. The bladder has been called the "stomach" of the urinary system. This parallel is not so crude as it may first appear, for just as appendicitis, cholecystitis, duodenal ulcer and a host of other intra-abdominal conditions were formerly diagnosed as "stomach trouble"—from the fact that gastric distress is usually a prominent symptom of these diseases, so urologic pathologies, particularly if frequency be present—are too commonly labeled with the diagnosis "cystitis." Such a diagnosis, even if bladder inflammation does exist, is an incomplete diagnosis, for cases of cystitis that we encounter are almost invariably part of a generalized urinary infection or are otherwise complicated. The bladder itself is very resistant to bacterial invasion, being lined throughout—with the exception of the trigone—with squamous epithelium and having relatively few mucus glands, it offers an almost perfect barrier to infection. The trigone—that part between the ureteral openings and the internal urethral orifice — is in reality a fan-shaped continuation of the urethra, embryologically, histologically, and

anatomically. Its cells are columnar and it is in this limited triangle that we meet by far the greater number of infections giving rise to that condition known as trignotitis or cystitis colli. This is often seen in a marked degree when the larger portion of the bladder or that lined with squamous cells remains normal. This area is all that is usually involved in the so-called "gonorrheal cystitis," as the gonococcus thrives poorly if at all, on squamous epithelium. Infections of the upper urinary tract may literally keep the bladder bathed with purulent urine and produce no marked changes except for a congestion of the trigone. Urine discharged from the kidney upon the inflamed trigonal mucosa produces the frequency and bladder intolerance so often interpreted as "cystitis."

Some relatively unimportant urinancy conditions exhibit symptoms of much emphasis, and conversely grave and extensive pathology may exist with a paucity of symptoms. In view of this, every evidence of urinany disorder, no matter how seemingly trivial, should be precisely accounted for, through an accurate and comprehensive examination. It is only by following this rule invariably that errors can be avoided, errors that result in the progression of pathology from a point where, were the correct diagnosis made, recovery might be confidently expected, to that of a hopeless prognosis. Every urologist will bear witness to the truth of this statement and can cite, not isolated, but many instances of advanced genito-urinary conditions, which have been subjected to months of misdirected treatment, usually applied in the forms of bladder lavage for a supposed "cystitis." These "urologic wrecks," cases whose course has been steadily down hill, have not been afforded the opportunity of receiving the treatment demanded, and are pathetic illustrations of neglect and faulty diagnosis. Patients with bilateral renal tuberculosis all began with a unilateral involvement curable in its incipiency; renal tumors with metastases at one time were purely local and safely operable; extensive kidney infections are the result principally of removable causes plus infection. Such advanced conditions will become unusual instead of being met with daily in hospital and private practice, when the cystoscope is used as commonly in the diagnosis of urinary conditions as the stethoscope is in thoracic. Why shouldn't the patient with urinary tuberculosis have an equal chance of a correct diagnosis as the pulmonary case? By what line of reasoning is it established that the stethoscope is recognized as indispensable while the cystoscope is yet in the opinion of many of questionable utility? Since this idea is more or less prevalent, it is not amiss to re-affirm that in no department of medicine has greater progress been made in both diagnosis and treatment than in urology. We, whose endeavors are in this field, make this assertion without fear of contradiction.

There can be no dissenting voice to the following statement: Every patient, no matter to whom he comes or for what relief, is entitled to every effort and precaution on the part of his examiner in order that a clear-cut and complete diag-

nosis may be made. Admitting this, it is suggested that every patient presenting pollakiuria, recurring or persistent, have the following routine examination, which may be carried out by any physician:

1—A complete physical examination.

2—Chemical and microscopic urinalysis.

3—Combined functional test.

4—Kidney, ureter and bladder X-Ray plates.

In the event that there is any doubt as to the nature of the condition, after these steps have been carefully followed, consultation with the urologist is in order, so that data obtainable only through cystoscopy, ureteral catheterization, examination of segregated urines, functional tests of each kidney and pyelography may be available for study. When this plan, as outlined, has become more generally adopted, patients will receive the full benefit of the great progress that has been made in the diagnosis and management of urologic conditions.

It was noted above that some cases with slightly or easily removable pathology may be accompanied by an exaggerated symptomatology. Three cases illustrating this, each presenting marked frequency, follows:

Case 1 is that of a girl, age eleven, who has for three years had an enuresis with frequency both day and night. She has a profuse glairy vaginal flow with much excoriation of the genitals. Examination of this secretion discloses an immense number of motile organisms, evidently infusoria. The urine is negative. A few mild antiseptic vaginal treatments completely removed the discharge and with its disappearance, the bladder symptoms were promptly relieved.

Case 2, Male, age 28. He gives a history of bed wetting until twelve to fourteen years regularly. He now has frequency both night and day about once an hour. His urine is normal in amount, and negative chemically and microscopically. He has exceedingly small meatus, admitting only a No. 7 catheter. Meatotemy is done to accommodate a cystoscope. The findings are negative. He is instructed to return in two weeks and at that time he reports being able to retain urine on an average of three hours in the day and with no call in the night. Evidently, the infantile meatus was the sole cause of his frequency.

Case 3, Male, age 30, whose history is negative except for a gonorrhea seven years ago. He gives a history of frequency dating from this infection. Urinalysis is negative. He is cystoscoped with the idea of making a complete urological examination. A mass the size and shape of a pigeon egg is seen in the bladder and is first mistaken for a stone. On investigation, this is found to be a mass of paraffin introduced by this patient in the hopes of removing his gonorrhea seven years ago. Removal of this foreign body was followed by a complete recovery.

(Lantern slides illustrating cases of advanced pathology exhibiting slight symptomatology.) (Impacted calculus, hydrophrosis, hydroureter, double nephroptosis, etc.)

Coyle and Richardson Bldg.

Bibliography

(1) Davis, F. D., Frequency of urination. Boston Medical and Surgical Journal, Jan. 1, 1920.

(2) Mackay, A. E., Frequency of urination. Northwest Medicine, March, 1920.

(3) Kahn, W. W., Pollakiuria as functional disturbance due to eyestrain; J. A. M. A., Dec. 7, 1918, p. 1877.

(4) Guiteras, Pollakiuria. Urology, Vol. 1, page 239.

(5) Braasch, Wm. F., Atrophic Pyelonephritis, Northwest Med., 21: 1, Jan. 1922.

(6) Bugbee, H. G., Frequency of urination in women, J. A. M. A., Chic. 1917, 17, 693-697.

(7) Abbott, A. W., Diseases in which frequency and pain in urination are prominent symptoms. J. Minn. M. Ass. etc. Minneap. 1908. 28, 53-56.

(8) Peacock, A. H., Etiology and pathology of frequent urination. West. M. Times, Denver, 1915-16, 35, 8-11.

(9) Nelson, A. W., Frequency of urination. Ohio M. J., Columbus, 1912, 8, 72-77.

(10) Kickland, W. A., Causes of increased frequency of urination; Denver Medical Times, 33: 389, 1913-14.

(11) Stokes, A. C., Diagnosis value of abnormal micturition and pain in genito-urinary diseases. Am. J. of D. 13, 412-415, 1909.

DISCUSSION OF PAPERS

Dr. Aubrey C. Belcher, Huntington:

I do not think we have ever had presented before the Society two more important papers than those we have just heard.

The first paper presents a method which is absolutely essential, the combining of cystoscopy and radiaography. There is not a branch of medicine I know today more accurate than urology. There is no branch in which there are more mistakes in diagnosis.

Dr. Barker has brought out a very pertinent point. The future of roentgenology, as I see it, depends upon this, that roentgenology as a specialty must be narrowed down to this, that a man knows gastro-intestinal work, knows the chest, knows metastases in the bone, and knows the value of a high power machine. The dentist will do his own roentgenology; the bone man will do his own. I do not see any reason why they should not, because they are dealing with facts.

Dr. Robertson takes up the subject of pollakiuria, not a disease, but a symptom. The fellow today who makes a diagnosis of cystitis is the same as the fellow who carries a key-winding watch. He is behind. Very rarely we have a primary cystitis, but usually there is something behind it. If there is stricture there is a tumor; if there is infection we should narrow it down to teeth or tonsils. Cystitis should be rated as a symptom.

We must get a little closer together on the subject of co-operative diagnosis. We have to know a little more about the trunk of the tree and not spend so much time on the branch. In the last ten years we have been forgetting the patient. That is a rotten point of view. We must get back to the

point where we take in the whole situation. I think that Dr. Robertson has brought out a point, namely, cystitis as a symptom, which every one of us will do well to remember.

* * *

Dr. R. K. Buford, Charleston:

I have listened to these excellent papers with a great deal of interest and profit. I wish to congratulate the Committee on Scientific Work upon the excellence of the program. Heretofore we have discussed medicine and surgery, and have not given any attention to the urologist. Urologic diagnosis depends upon the microscope, which determines the bacteria and other pathological contents of the urine. By the catheter and cystoscope, and the roentgen ray, hydronephrosis, renal neoplasms, displaced kidneys, kinks, angulations, ureteral stricture, and calculi are very definitely diagnosed. Abdominal symptoms calling for a urological diagnosis are abdominal pain, especially in lower half of abdomen and radiating in character with nausea and vomiting, dysuria, hematuria, and bacteriuria. Pus in the urine usually denotes ureteral trouble. In the examination for pus the urine should be voided in two vessels. If the second portion is practically free from pus, the trouble is probably not in the bladder, ureter, or kidney. If the second portion contains practically the same amount of pus, the bladder, kidneys and ureters should be examined. The genito-urinary tract should be examined carefully; casts should be located; leucocytes, both mononuclear and polynuclear, and bacteria found. Causes of urinary disorder may be found in the central nervous system, for instance, tabes. Even if syphilis is denied a Wasserman should be made. Greater accuracy is obtained by the combined use of the cystoscope and roentgen ray. A patient should receive pyelogram and cystoscopy, catheterization of both kidneys, and passage of wax-tipped catheters to determine the location of strictures or calculi.

Obstruction is characterized by irregular contour. Tumors of the kidney are characterized by irregular outline, deformed pelvis.

Pus in the urine, blood in the urine, disturbances in function, should deserve serious consideration. O'Malley maintains that 25 per cent of the patients who come to Massachusetts General Hospital had had appendix or some other intra-abdominal operation performed without relief. Baker reports 50 cases of ureteral stricture in females in whom there had been sacrifice of appendix, tube, or ovary without relief. This is common knowledge to the urologist.

Dr. Belcher brought out a very important point as to co-operative diagnosis. Before operation I am sure that the internist and surgeon will all profit by co-operation with the urologist. No cases of genito-urinary symptoms should be treated symptomatically or empirically.

* * *

Dr. W. S. Fulton, Wheeling:

I think the time has come when no man can practice general surgery without being directly associated with the urologist. When you see a man or woman coming into your office looking like the map of Europe from operations for indefinite pain, and you turn him over

to the urologist, you find stone in the bladder or in the kidney or ureter, that would have saved all that trouble.

Is it any wonder that this branch of medicine has advanced further in the last ten years than any other branch? I feel the need of urologists so much in my work that I have one associated with me now, and he has increased my efficiency in general surgery I should say as much as 25 per cent. So you men who are doing general surgery, if you have not a urologist in your city, get one.

* * *

Dr. R. M. Bobbitt, Huntington:

This subject has been very well covered and ably discussed, and I feel that I can not let it go by without expressing my appreciation of the time given to urologists at this meeting.

There is one big point which Dr. Barker brought out, and that is the subject of kidney function. I do not think there is one item in all the methods we have that gives better results than kidney function. Fortunately for the human body, in the event of one kidney's becoming diseased, the other kidney will begin to compensate for it. In case we find a disabled kidney we should be sure that the other kidney is compensating, taking up the load. That is one thing that we should be sure about. We all know that in tuberculous kidneys the patient very often survives much better if the kidney has been more or less destroyed, with the resulting compensation of the other side, if that occurs. We are looking forward to this very important factor all the time. It has been my impression that we would better beware of the cases in which there is definite damage to one kidney or its function, and in which the other kidney has not increased its function.

* * *

Dr. Barker, closing the discussion:

I wish to express my thanks, for both myself and Dr. Boice, for the able manner in which the gentlemen discussed our paper. It gives me considerable courage in doing my work to know that the branch of urology is receiving more consideration from the Association.

* * *

Dr. Robertson, closing the discussion:

I can echo Dr. Barker's sentiments. It is certainly extremely gratifying to see the widespread interest that is being taken in urology now. We feel that we have something to offer you, and we want you to come and get it.

SOME AIDS TO DIAGNOSIS

Read Before West Virginia Medical Association, Huntington, May, 1922.

By DR. CHAS. E. GABEL, Charleston

When a patient presents himself to you with some abnormal condition for treatment, the cause of the same may be readily evident to you or it may not be known. Diseases, the etiology of which are not evident on superficial examination, can often be determined by the usual procedures of taking a history of the case, physical examination, fluoroscopy, etc. However in some cases the correct diagnosis is not made, due to a lack of knowl-

edge or due to the fact that all the various aids with which medical science is enriching itself are not utilized.

The knowledge you acquired in college was a good basis for your professional work, however it undoubtedly might have been better in quality and was deficient in quantity to last a lifetime. You may have regarded some of your old professors with awe and considered them omniscient and thought some of your text books were the acme of perfection and contained the sum total of all knowledge on the subject. Yet the authors and professors having a wider vision probably keenly realized their shortcomings. When they expected you to learn more than you thought was of practical value to you they undoubtedly realized with Pope that

"A little learning is a dangerous thing,
Drink deep or taste not of the Pyerean Spring.
There shallow draughts intoxicate the brain,
But drinking deeply sobers us again."

Some colleague having confidence in your superior ability may have asked you what your experience has been in such and such a case. Although you may feel flattered, as a matter of fact your experience counts for very little when compared with the experience of many other perhaps better qualified men, obtained from a larger and more suitable number of cases by more scientific and logical methods. Consequently the best way for most of us to get the most accurate and latest knowledge on the subject is to read medical literature. However as so many books and journals are published and soon become antiquated it is financially impossible for any one to buy all this literature. Besides in many copies only a small portion is used by one person whereas another may be interested in another part of it.

What I am driving at is that we ought to have Medical Libraries in this state. Libraries of other books and periodicals have been found to be a useful and economical means of spreading knowledge. In the same way and for the same reasons medical books and periodicals would be a great aid to the profession in its work of diagnosing and treating diseases.

Questions frequently arise to which we could find answers if we had access to a library of medical and related scientific books. Often we would like to look up a reference to some article in a journal which we either may or may not have subscribed to or having done that may have put it in the wastebasket after glancing through it. You may remember or find out where certain information can be obtained in a certain book but no longer have that book. We might have donated that and other books we no longer want to the library but as there was no such thing around they were burned with the useful information they contained lost forever. A library is a great repository of knowledge, a storehouse of valuable information where the mists of superstitions and ignorance are dispelled and the glimmering spark of hidden genius may be fed to burn brightly.

While we have a medical library at the university it is of no use to the rest of the state. The largest cities of the state should start their

own library. The county medical societies might aid in this work. A State Library might be located at Charleston in charge of the State Health Department. When the new Capitol is built provision should be made for housing it there. When I lived in Des Moines, Iowa, the State Library was in a separate building and it sent out traveling libraries, i. e., trunks of books, etc., to different points in the state, on demand, which could be kept there for a certain length of time. In Milwaukee some medical literature is kept in their beautiful city library, some books being accessible only on application to the librarian. The Milwaukee medical society has a library of its own, contributions of recent books being made to it by its Book and Journal Club, the members of which contribute five dollars a year. If you ever visited Crerar Library in Chicago or the Library of the New York Academy of Science you know that you can get almost any medical book or periodical you may need. Even in our far-off Philippines you would be greatly surprised to see the splendid library at the Bureau of Science in Manila with medical books and periodicals not only in English but other languages also. Although we have a very large library in Washington the largest in the world is located at Paris.

A physician has plenty to do without learning a few foreign languages. Therefore it would be advisable to publish all important contributions to medicine in a single language which all nations learn beside their own. Such an Auxiliary International Language has been formed by a physician and phylologist, Dr. Zanenhof, and is used to a considerable extent in Europe. I first heard of Esperanto from a French astronomer while visiting in the Jura Mountains in 1901 and later learned it. The whole grammar of this simple and useful language can be put on a postal card.

Another great need in the medical profession is the encouragement and prosecution of research work, physicians cooperating with pathologists, bacteriologists, pharmacologists and chemists. Thus many of the unsolved problems which we frequently encounter, might by intensive and united study be cleared up in a comparatively short time to the benefit of suffering humanity.

The second part of my paper will deal with some practical points in which laboratory work is used for the diagnosis of disease. Although some do not use for various reasons the facilities of a laboratory when indicated others want more information from it than can reasonably be expected. E. g. we are sometimes asked to examine a sputum and determine all the organisms in it, or to test the water and determine all the germs in it, all the chemical substances and their medicinal property. Such tasks might be suitable for research work but have no place in a practical laboratory in which the routine work more than consumes the time and funds available.

We are sometimes asked to examine a potable water for typhoid germs. This appears to be a reasonable question but its impracticability is seen when we learn from an eminent bacteriologist that B. typhosus has only been recovered

in very few such cases. What we do is to look for the more hardy B. Coli and declare the water unsafe if it is found under certain conditions. If B. coli is present, B. typhosus may also gain access under suitable conditions.

In a suspected typhoid fever case the blood should be examined during the first week, by sending a few cc. in nutrient media to a laboratory for culture. There we look for the typhoid germs. In the following case we looked for typhoid anti-bodies. These are not well formed until the second week and later when the Widal test may be made. Although one drop of dried blood may suffice for this, it is advisable to send a specimen as for the Wassermann test so that the serum can be used and accurately diluted. Successive blood tests would indicate the stage of antibody formation. For the examination of convalescents and the determination of carriers the urine and feces may be tested. A small quantity should be sent preserved in a glycerine solution to the laboratory. Here also as in testing the blood some of the material is streaked on plates and typhoid-like colonies identified by fermentation and agglutination tests.

Intestinal parasites reveal their presence by a microscopic examination of the feces in which usually the ova are found. However a blood smear may also be useful by revealing an eosonophilia.

In making complement fixation tests I wish to advise against the use of office, drop or short methods or those made without proper controls. They may come out all right and then again they may not and you be none the wiser. A simple formol test has been devised to indicate the presence of syphilis but while it often agrees with the Wassermann test in some cases it does not and consequently can not be regarded as a good method. It makes little difference whether human or sheep cells are used for the hemolytic system. Some physicians do not seem to understand why it is impossible to make a complement fixations test on certain specimens of blood. Could you make a red cell count on a blood treated with acetic ecid? Some bloods undergo certain changes before they are tested so that a diagnosis can not be made on them. When a blood is reported hemolyzed it means that it has laked, the red cells being broken up. Other refractory specimens may give results when suitable amounts of more complement is added but others seem to inhibit the action of complement entirely so that the control tube can not be hemolyzed. Such specimens are designated anticomplimentary. While that particular specimen can not be diagnosed another specimen from the same patient under proper conditions can be readily analyzed.

In testing for syphilis a dark field examination should be made of a sore before applying local treatment. An India ink smear is not a dark field as some imagine, but it may be used as well as strained smears when a dark field condenser is not available. After antibodies have formed in the blood their presence can be determined by making the Wassermann test on the serum. Before a patient is discharged as cured and in certain other cases, the spinal fluid should be

tested. This is often neglected. Besides testing for syphilis, complement fixation tests are also useful in diagnosing certain stages of gonorrhoea and tuberculosis.

The gonococcus may be easily confused with other cocci. Some physicians merely make a methylene blue stain of their smears. If pyogenic diplococci are present they may be mistaken for the Neisser organism. We make methylene blue stains because it shows the morphology better than the Gram stain. We make the latter also as gonococci are negative but pyogenic diplococci are positive. However the meningococcus and M. catarrhalis are also Gram negative intracellular diploccoci. By knowing the source of the specimen we can usually differentiate the meningococcus from the gonococcus. However the M. catarrhalis may occur either normally or pathologically where the gonococcus thrives. But it can be ruled out by cultural methods which also as well as serological tests differentiate it from the meningococcus.

DISCUSSION OF DR. GABEL'S PAPER, "SOME AIDS TO DIAGNOSIS."

Dr. F. C. Hodges, Huntington:

I have enjoyed Dr. Gabel's paper. There are several points which he discussed which I would like to take up in further detail. Of course, when we look up information on any subject we need a large library at our command, but here it has not been established. There are other ways to find a subject. I have found the Accumulative Medical Index gotten out by the American Medical Association very useful. It is gotten out every quarter and contains the names of all the medical articles gotten out in the world, with the name of the author. It is indexed by the author's name, the subject, and the name of the article. If we want to get any of the articles listed, we can go to a library and write in to the Surgeon General in Washington, and he will send the article to the library, and we can go there and get it. If some of the articles are in languages you can not translate, there is an American Institute of Medicine which will abstract or translate, either verbally or in substance, any article you may wish. I have not availed myself of that as yet, but I intend to.

I am not advertising these companies, but it does seem to be a good way of looking up literature without loss of much time.

In sending specimens to a laboratory for examination, I think it would be good for a doctor to know something about the tests made upon the specimens. If he could see one test performed upon every kind of specimen, he would know better what care to take in taking the specimens. For instance, there is one doctor not very far from here who sends in regularly a four ounce bottle of blood. That certainly subjects the patient to an unnecessary loss of blood. Again, another doctor sends in tissue specimens for examination from the size of a pea down to the size of a pinhead.

In taking a Wassermann there are certain precautions to be observed. First, have the container sterile. Second, have the container dry, or else hemolysis will take

place. Third, do not use a preservative. If put into a narrow-mouthed bottle and the preservative poured on, very often when the specimen reaches the laboratory it is so hard that it can not be gotten out through the mouth and the container has to be broken.

Again, in sending a specimen, send a short history with it. A laboratory worker is just as much entitled to a brief history as a clinician listening over the chest. You can not expect to send in a small piece of tissue, with no history, and expect to get a complete diagnosis.

Also, do not take the laboratory's word as final proof in every case. Laboratory work is no more of an ipse dixit than any other work, and much of it is due to the personal equation. Select a laboratory and, if you can, learn in brief the technique to be followed, and you will get much better results for the patient and for yourself, and the laboratory can give much better results.

Do not send in specimens of urine without a preservative. Do not send specimens of sputum in without a preservative if they are to be examined after two or three days. Do not send in specimens of feces without a preservative. You can not expect to get good reports from such specimens. It will be well worth while to you, to the patient, and to the laboratory worker to pay some attention to the specimens you send in.

* * *

Dr. W. E. Vest, Huntington:

There is one thing that I want to say about laboratory work, and that is that you can not depend absolutely upon the laboratory findings. You have to take them in connection with the whole clinical picture before you can establish a diagnosis.

Another thing is that you can not place too much confidence upon a negative Wassermann reaction. I called your attention to that in my clinic yesterday. I had a patient, a man who had indigestion for a long time. The Wassermann was negative, but finally one was made which was four plus. This man later admitted that he had an initial lesion twenty years ago, and he feels satisfied now that syphilis was the underlying cause, as do we.

ACUTE PURULENT MASTOIDITIS

Read Before the Mingo County Medical Society

By DR. THOMAS R. SLAYDEN
Williamson, W. Va.

The term "mastoiditis" is here employed to define an inflammatory process involving the tissues of the mastoid antrum and mastoid cells, which is induced by an invasion of pathogenic micro-organisms.

With rare exceptions the disease originates in a similar process which has primarily developed in the tympanic cavity, the extension being by contiguity through the aditus. These exceptions are deposits of pathogenic micro-organisms carried through blood or lymph circulation, following the infectious diseases, typhoid fever, pneumonia, etc., influenza being the most common.

Since the mucous membrane in the mastoid process and the mucous membrane of the middle ear tym-

panic cavity are contiguous, it follows that the mucosa of the mastoid antrum and mastoid cells usually become involved to some extent in every case of middle ear supuration. In the majority of cases, however, the purulent invasion of the mastoid process subsides quickly in response to drainage and as a result of final resolution of the inflammation in the tympanic cavity.

These tissues become swollen through hyperemia and infiltration with inflammatory exudate, which interferes with the blood supply of the intercellular bony walls, the tissues slough, and bone necrosis ensues. Thus by the absorption of intercellular walls, larger cells and cavities result, and as absorption would continue and the inner table would be absorbed it would admit infection of the middle cranial fossa. If there is less resistance to the outside, it escapes by direct perforation of the skin or burrows downward through tissues of the neck.

Acute purulent mastoiditis quite frequently develops during the course of chronic otitis media. Therefore, chronic otitis media must be considered as being in etiological relationship to acute purulent mastoiditis.

Failure to establish timely and efficient drainage of pus through the drum membrane, either by rupture or through incision, of an acute purulent otitis media, is a common determining factor in the causation of acute purulent mastoiditis. The exanthemata, scarlet fever, measles, etc., causing otitis media, lowered vitality from any cause whether from general systematic disease or physical exhaustion, strongly predisposes to mastoiditis whenever a chronic otitis media ensues.

Acute purulent mastoditis is divisible into two general types:

1. A form almost painless, but characterized by a profuse otorrhea.

2. A form evidencing deep seated intense pain from the beginning, and having only a moderate amount of discharge from the ear.

The first is the most rare of the two forms. It is not so easily recognized, due to lack of pain. When there is free drainage through the drum membrane there is little tenderness on pressure, no swelling or discoloration to assist one in a diagnosis. When there is so much discharge that we know it cannot all come from the middle ear, we know it must come from the adjoining mastoid cells. However, if free drainage is stopped, pain, swelling and discoloration set in.

The second, or regular type, is the most common. It is evidenced by pain, tenderness on pressure over the mastoid antrum, which is due to pent-up pus and to the inflammation of the intra cellular mucosa. Body temperature is not a constant index. It may be normal, above or below, in adults. About fifty per cent of children carry temperature; some, convulsions. The facial expression is one of pain and suffering, the head usually inclined to the affected side. There is, sometimes, tension of the sternocleido-mastoid muscles, especially when the tip cells are involved and the cortex has ruptured. In both types there is drooping of posterior superior canal wall, thus narrowing the lumen of the canal.

A differential blood count which records a marked increase in the leucocyte count and a high polynuclear percentage, when occurring with other symptom, tends to establish a more positive diagnosis. X-ray pictures show valuable confirmatory evidence of a purulent invasion.

All summed up in a few terms: the drooping of the posterior-superior canal wall, the bulging of the upper segment of the drum membrane, pain on pressure over the mastoid fossa, mastoid tips, and mastoid emissary vein, and the significance which must attach to excessive and continuous otopyorrhea which resists all approved measures of treatment, constitute the classical symptoms of acute purulent mastoiditis.

Now that we have a purulent mastoiditis, what is to be done? Some say operate in all cases, when positive diagnosis is established. I say not every case demands it. In the first class spoken of, where free drainage is established and maintained, local treatment, together with constitutional treatment will result in a cure and save the patient from operation. These cases must be put to bed. Free purgation, internal antiseptics, such as calc. sulph. formin, echinacea, phytolacca, belladonna or gelsemium to lessen the congestion of mucous membrane, which gives better drainage; locally, cold ice packs or cold water through coils of rubber tubing to retard the development of bacteria, together with local medicated packs in the canal for a time to lessen the local congestion and inflammation, also to allay pain, are along the lines of treatment.

The second type spoken of, demands an operation to establish free drainage and curette away all diseased bone. I shall not go into details of an operation more than to say we have two types: 1, the simple; 2, the radical.

The simple only deals with the mastoid cells; the radical with the cells and middle ear, and sometimes has to be done to get rid of all diseased bone. This is a very grave thing and should never be done unless positively necessary. The patient is hardly ever normal afterward. Hearing is most always affected after the radical, but when a simple is successfully done, no disturbance of hearing is manifested. There are a few complications that any surgeon may encounter in doing this operation, so all the pathway is not roses. You may be feeling secure in your work of getting out the diseased bone, when a rush of blood tells you there is a lateral sinus in that region that you may have forgotten about since college days. Then you may touch up the seventh or facial nerve, which gives you a free walking advertisement for the remainder of the patient's life.

These and a few other things that every operator must know and keep in mind while operating will enable him to get along successfully with most all cases:

Summary

1. Be positive of your diagnosis, —first or second type. Treat first; operate second. First may turn to second. Watch case closely.

2. Be competent; have competent equipment.

3. Do your work well; get results.
4. Collect your fees.

BICHLORIDE OF MERCURY POISONING FROM THE USE OF A DOUCHE.

By C. J. BROEMAN, M. D., Cincinnati, O.
Assistant Director, Department of Dermatology and Syphilis, Cincinnati General Hospital Medical Department, University of Cincinnati; Radiumtherapist to Seton Hospital, etc.

The lay press has not of late treated us to quite so many "scares" concerning the horrors of bi-chloride poisoning, as was the case a half dozen or more years ago, but the ever-present danger of advising, or even permitting, inexperienced and untrustworthy individuals to make use of such a powerful toxic agent is in no wise lessened, and the serious and even fatal effects of this poison are still frequently seen in daily practice.

I have deemed the following case worthy of report because it illustrates the folly of prescribing bi-chloride of mercury for use in a douche, when we can avail ourselves of so many other substances —such as potassium permangenate, zinc sulphate or chlorazine—that can be made up into quite as efficient a cleansing and disinfecting solution, and are relatively non-toxic and harmless. It also emphasizes the importance of placing the administration of bi-chloride of mercury—when it is necessary to use it—in the hands of those who are fully acquainted with its dangers and know exactly how to prepare the solution and the best method of administering it, which amounts to saying that no one but a physician or a trained nurse should ever be allowed to handle it at all. The importance of thoroughly dissolving the tablet before putting it into the douche bag or other container, and the necessity of proper dilution of the solution are also graphically illustrated.

The patient, Mrs. E. S., aged thirty-three, had been in the habit of administering douches to herself for a period of over two years, since she had undergone an operation for procidentia and "ovary trouble." She was unable to identify the solution of which she had made use for this purpose. Only once, about a year previous, had she made use of bi-chloride of mercury, and this had been followed by no ill effects of any kind.

On August 5th, 1921, this patient was admitted to the hospital with a history of having been burned by bi-chloride of mercury solution used as a vaginal douche. She had used one tablet of the ordinary commercial size, which she had dissolved by placing it dry within the douche-can, and pouring over it about a half-pint of water. The solution was not stirred nor the douche-can shaken to thoroughly dissolve the tablet, or properly blend the solution. As soon as the solution was introduced into the vagina, she experienced an intense burning sensation and at once removed the tube. Realizing that her condition was serious, she went immediately to a physician who irrigated the vagina, using about two quarts of what she described as a "white solution." He also administered soda by mouth, and advised entrance at the hospital.

On admission examination showed the gums to be red and tender but not actually bleeding; the breath was foul. The labia majora and the tissues immediately around the vulva were reddened and appeared somewhat edematous. No vaginal examination was made. The day following admission, the urine was cloudy, with an acid reaction and a specific gravity of 1.015 and showed a distinct trace of albumin. Under the microscope pus-cells were visible, but no casts.

August 7th, the second day after admission, the urine was still cloudy and acid, with a specific gravity of 1.010 and evidences of albumin. The right side of the face was swollen and tender. The patient complained of pain in the mouth and inspection showed the gums to be very red and swollen, while necrotic areas were visible in the buccal mucous membrane against the upper right molars and the left third molars. The return flow of the vaginal douche showed pieces of mucosa.

The following day the facial swelling had somewhat subsided, and the necrotic areas against the upper molars did not appear of so dark a color, though there were whitish areas of necrosis on either side of the tongue.

A second examination of the urine on August 7th gave a specific gravity of 1.010, a very pale color, but turbid, and evidencing only a faint trace of albumin. There were no casts, but pus—and epithelial—cells were numerous, possible from a mingling of the vaginal discharge.

The next day—August 8th—the general state was markedly improved. The return from the vaginal douche showed much less sloughed material, but the urine was of a dark ambre color, acid, turbid, with a specific gravity of .1020, positive for albumin, and loaded with pus-cells. A few granular casts were also present.

By August 13th, eight days after the absorption of the poison, the patient did not complain of any pain, and the condition of the mouth was markedly improved. Five days later she took soft food without difficulty, and although the mouth still looked red, the necrotic area had all sloughed away leaving a clean surface. The vaginal mucosa had also healed and though still reddened showed no sloughing areas. A catherized specimen of urine showed only a trace of albumin with a few pus-cells and epithelial cells. At the time of discharge it was still deemed unwise to make any extensive pelvic examination because the mucosa was somewhat tender and painful under manipulation.

The blood count at the time of discharge was: White cells, 19,020; red cells, 6,504,000; polymorphonuclears, 88.5 per cent; large lymphocytes, 2.3 per cent; small lymphocytes, 8.5 per cent; eosinophiles, 0.6 per cent.

Treatment consisted primarily of rest in bed, a fluid diet free use of an alkaline drink. One-half grain of calcium sulphide was administered every two hours, and magnesium sulphate to be used as a laxative. A solution of potassium chlorate was alternated with one of potassium permangenate for use as a mouth wash. Locally, a vaginal douche of sodium bi-carbonate one teaspoonful to the pint—was given three times a day.

Forty-eight hours after admis-

sion, as the patient's condition was not improving, the necrotic areas in the mouth spreading, and more albumin being found in the urine, I decided to employ an intravenous injection of calcium sulphide, and accordingly administered seven and a half grains of calcium sulphide in the same number of ounces of distilled water. The employment of calcium sulphide in the treatment of bi-chloride of mercury poisoning was first suggested to me by Dr. J. H. Wilms of Cincinnati, while acting as a consultant in a case of bichloride of mercury poisoning where a seven and a half grain tablet had been taken by mouth. The condition of this earlier patient became alarming the third day and I feel sure that the intravenous injection of calcium sulphide undoubtedly saved his life. The use of this drug was equally satisfactory in the present case. In passing let me emphasize the necessity of using only a freshly boiled and filtered solution.

In conclusion, I wish to urge more care on the part of the physicians in recommending douches to their patients, and to express the opinion that a mild antiseptic plentifully administered is far more efficient than a strong germicide improperly applied. All use of bi-chloride of mercury by laymen, no matter how intelligent, should be systemmatically discouraged.

September 28th, 1922.

DR. J. R. BLOSS, Editor,
Huntington, W. Va.

Dear Doctor:—Now that the soldiers' bonus is settled, at least for the present, let us turn our attention to the Doctors who left their families and business and volunteered in the service of their country.

All states do not reciprocate with West Virginia and none of them reciprocate with each other without a great deal of red tape and expense, in fact many Doctors would dread the ordeal of having to undergo an examination in order that he may change his present location to his native state and he contents himself the best he can from intruding upon the forbidden ground of his neighboring state. Now, in return for services rendered our government by the enlisted Doctor, who had successfully passed the government examination at the training camps, attended the lectures, recited at quizes and otherwise took the prescribed curriculum of medical and military subjects, should at least receive the small consideration at the hands of our civil authorities that would relieve him of the red tape ordinarily necessary to enter another state of his choice or to move from one state to a state that he may choose.

This is asking for nothing unreasonable, in fact the extra favor should be granted upon application that our medical men may feel that their service has earned a considation that a Doctor who stayed at home and did not only keep their own patients but who got the enlisted Doctor's patients also and refused to return them upon the enlisted Doctor's return to his home and practice. In fact some of the civil doctors seem to have it in for the Doctor who enlisted.

Very truly yours,
R. M. RILEY, M. D.

THE WEST VIRGINIA MEDICAL JOURNAL

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Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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HEALTH EXAMINATIONS

The longer one practices actively in our profession, the more impressed he becomes with the needlessness of so much preventable illness. We see each day persons who should not be in need of our services for sickness at all.

Thinking along these lines we come to feel that the physicians of a few years hence will have entirely different role to fill. Gradually the public is becoming educated to the value of preventive medicine, and ere long they will probably be demanding a different type of service.

One has but to try in his own practice to show the advantages of keeping well and soon he finds that an increasing number are coming to him at more or less regular intervals for an "examination." They wish to know that they are alright.

A physician of our acquaintance has quite a large number of men that come to him at stated times for a regular life insurance examination. There are some who come every three months; others every four months, while others still come

twice each year. The majority of them are middle-aged, hard-headed, successful business men, who realize that their physical capital is intact, and wish to spend only the income. They feel that to preserve their abilities and increase their active years they must have their accounts audited regularly and systematically. For these examinations of five dollars is paid, and where microscopics of urine are done ten dollars is charged. There has been no bad feature discovered so far in this plan, and it is proving eminently satisfactory to all parties.

Very naturally this does not prevent the acute diseases as Influenza, Pneumonia and so on. Still even here it has been of marked assistance for these men have come to see the advantages of calling their physicians early. If members of their family become ill they do not wait "to see what it is going to be," but call their medical adviser at once. As a result they are kept well or cured promptly.

If the members of our profession will but get together on this matter and will start in unitedly to further this educational plan for health insurance of this character, it will be surprising what can be accomplished.

There is one thing we must not lose sight of, however. There is quite a sentiment among the laity that our profession is becoming very much commercialized. Just what effect the establishment of the so-called "Clinics" or "Groups," and the great strides of "Specialization" of one kind or another has been in developing this sentiment is hard to tell. Suffice it that it does not exist, and we must try to show that it is unjust.

People will pay for honest service, in our experience, and pay well. They must feel though that they have not been "hooked."

The equipment of the modern physician is very expensive. Still if patients see that a man has invested in equipment that may have better service, more careful attention, et cetera, they feel like paying larger fees, and will pay them. We can no longer look wise and use long, unintelligible medical terms and "get by" with it. We must deliver the goods.

Either we must educate the public in some such way as this, or we will have "State Medicine," or "Health Insurance" or "Panel Practice," or something else brought forward to meet the situation.

A FORTHCOMING PUBLICATION

For some time there has been evident a growing sentiment in the profession looking toward a better means of keeping the laity informed as to the progress of medical science, its achievements, and its limitations. Perhaps this sentiment has been stimulated somewhat by the strenuous advertising campaigns conducted by the patent medicine interests and the organized cults with a view to extracting cash from a gullible public. Within recent years the daily press has been reeking with the alleged virtues of Herb Sap, Chiropractic, and what-not, and lately we see extolled the wonders of Naprapathy, whatever that is.

Much good has been accomplished against these evils. Adams'

Great American Fraud, the Federal Pure Food Law, the efforts of the Council on Pharmacy, and DeKruif's articles have done much, but they have not penetrated sufficiently the great masses of the laity. With much pleasure, therefore, we learn that a periodical is soon to be launched whose object shall be to educate the laity along proper medical lines, and to inform them definitely as to the truth about medicines and doctors, what modern medical science is doing, its possibilities and limitations. This publication is to be brought out under the auspices of the American Medical Association which fact alone guarantees the authenticity of its contents and its value to both the profession and the public. We trust every member of the profession will keep a copy on the table in his waiting room and will facilitate its circulation in every legitimate way.—W. E. V.

LABORATORY PRACTICE

Frequently we are impressed by the genuinely implicit confidence placed in the laboratory findings in the diagnosis of various diseases. When one has observed these matters over some years and has thought painstakingly on the subject it is impossible not to develop a great wariness in trusting too implicitly.

We would not be understood to mean to cast any doubt upon the training, or skill, or conscientious report of the laboratory technicians. This is not the point at all. The point is that time after time the laboratory report is at very wide variance with the clinical aspects of the case. The question is which is to be accepted.

A patient with obscure nervous symptoms has some of the clinical manifestations of leutic involvment of the central nervous system. Blood and spinal fluid Wassermann tests. Cell counts et cetera are reported negative; yet suitable antileutic treatment clears them up. A man with acute appendicitis has perfectly normal blood pictures from the first yet dies from a ruptured appendical abscess; another still has a typical pus appendix picture with many of the clinical symptoms. A surgeon of experience says this patient has "not" appendicitis, with other careful and capable men maintaining the opposite. The surgeon is correct.

In view of these things the warning is that we must not depend absolutely upon laboratory reports. They are only aids to our clinical studies in dealing with disease. Naturally positive reports are far more valuable than negative ones. We should never decide that any condition is impossible because of negative laboratory reports, especially in the face of a positive clinical study.

Too many of us err in this it is feared.

TO THE EDITOR OF THE WEST VIRGINIA MEDICAL JOURNAL:

The Board of Examiners for Nurses send herewith the questions given at the last examination of the Nurses held on October 11th, 1922.

While there has been an appreciable improvement in the training of the applicants presenting themselves for the R. N. Degree, there is still room for improvement. The two outstanding defects on the part

of some of the nurses are: First, an entire wanting in the fundamentals or preliminary training, and second, an almost hopeless deficiency in the branches which should be taught and lectured on, in every training school for nurses. This constructive criticism on the part of the board is intended for those schools which are manifestly not doing their duty.

If our State nurses are to receive recognition or the benefits of reciprocity from other State Boards, there must be a radical change in the teaching; higher standards and ideals and attention directed to the preliminary training of applicants, at least the minimum standard of requirements.

Is it fair to detain young women in a so-called school for nurses for a period of three years, only to have them rejected by the State Board at the completion of their training?

Let those who are engaged in the education of nurses think seriously over this problem.

FOR THE BOARD.

By Frank LeMoyne Hupp, Pres.

COLLECTION AGENCIES

Some weeks ago The Journal published in the Propaganda Department two short articles, each dealing with a collection agency about which complaints from physicians had been received. These articles, apparently, stimulated many physicians who had had unpleasant experiences with these and other collection agencies to write to The Journal. From these reports it seems there are two tricks practiced by certain agencies that are especially exasperating. The first is that of incorporating in a long and verbose contract a clause, easily overlooked by the physician, to the effect that, should the physician wish to withdraw any of the accounts he has turned over to the agency, he must pay the agency the full commission on each account. Letter after letter has come in, from physicians who have signed such contracts, complaining that their delinquent patients have been bombarded with crude form letters which have simply aroused ill feeling to the point where the physician would rather cancel the debt than continue "dunning." He finds, however, that he cannot do so without paying to the collection agency an amount in cash equal to the commission this agency would have received had it enforced payment in full of the account. Another scheme that is much resented by physicians is that of obtaining accounts under false representations. A representative of a collection agency comes into town and assures the physician that his company does personal collecting and states, or leads the physician to infer, that the entire business or collecting the old accounts will be done by a representative of the agency through personal solicitation. After the accounts have been turned over the physician finds, to his cost, that the concern employs the usual series of stock dunning letters, most of them of such a character as to arouse resentment in the debtor rather than cause him to settle his account. There is no recourse, however, because the misrepresentation has been verbal, usually without witnesses, and the contract which the physician signs contains nothing to indicate how collections will be

made. But all the fault is not on the side of tricky collection agencies. Too many physicians sign contracts with these concerns without giving due thought and study to the contract. It is not a bad plan when these gentry come around to tell them to leave a copy of their printed contract for twenty-four hours so that it may be studied and then come back for a decision. Meanwhile the physician may consider whether or not, in the long run, he will not do as well by employing a local concern.—Jour. A. M. A.

ANNOUNCEMENTS AND COMMUNCATIONS

QUESTIONS ASKED AT THE EXAMINATION HELD BY THE WEST VIRGINIA STATE BOARD OF HEALTH AT CHARLESTON, OCT. 10, 11, 12, 1922.

Materia Medica and Therapeutics

1. Of what therapeutic value is a pill composed of the following ingredients: Aloin, Strychnia, Belladona? In what way does each of the ingredients contribute toward the desired effect?

2. What are some of the clinical indications for the use of Diuretics? Name a Diuretic appropriate for each of the indications named.

3. What symptoms would you expect in a patient who had taken a grain of Strychnia in divided doses in the course of 12 hours?

4. What would be a safe and effective dose of Chloral given per rectum to a child two years of age having convulsions?

5. Name the official Pharmaceutical solid and liquid preparations of drugs for internal administration.

6. What do you understand by a Therapeutic Incompatibility, Chemical Incompatibility, Pharmaceutic Incompatibility?

7. In what stage of Syphilis are the Iodides indicated?

8. Give symptoms and treatment of Wood Alcohol poisoning.

9. How is Diphtheria Antitoxin made, and how does it cure Diphtheria?

10. Upon what does the prophylactic value of Typhoid Vaccine depend?

11. What are the contra-indications for the administration of Arsphenamine?

12. What are some of the clinical indications for the internal administration of Bicarbonate of Soda?

W. M. BABB, M. D.,
October 10, 1922. Examiner.

Anatomy

1. What would be the collateral circulation if the brachial artery were ligated below its profunda branches?

2. Name the branches of the abdominal aorta.

3. What is the lymphatic system? Describe the right lymphatic ducts.

4. What is the solar plexus?

5. What forms the internal hamstrings?

6. With what bones does the frontal articulate?

7. What structures are severed in tracheotomy?

8. Name the seven openings in to the pharnyx.

9. Locate and describe the ileocecal valve.

10. Describe the inguinal canal. What does it contain?

11. Give development of the humurus bone.

12. Give the development of the stomach.

J. L. PYLE, M. D.
October 10, 1922 Examiner.

Surgery

1. Define gastrotomy, myomectomy, urothrotomy.

2. Give symptoms fracture at base of brain in middle fossa skull.

3. Etiology of pleurisy with effusian.

4. Diagnosis of Pott's disease.

5. Discuss the use of glucose and soda solutions in surgery.

6. Give contra-indications to use of ether.

7. How would you do a lumbar puncture?

8. Diagnosis of congenital syphilis.

9. Mention causes of hematuria.

10. What is a neuroma? Mention a frequent cause.

11. Give symptoms of hypertrophy of prostrate.

12. Discuss briefly the value of blood counts in surgery.

Answer any ten questions.

H. G. CAMPER, M. D.,
October 10, 1922. Examiner.

Bacteriology and Hygiene

1. Name the important pathogenic anaerobes.

2. Define the following terms: Germicide, Antiseptic, Asepsis, Sterile and Disinfectant.

3. Define and illustrate the terms: Obligate, Pleamorphous and Sporogenous.

4. Define ptomains and leukomains.

5. Differentiate between gonococus and diplococus intracellularis meningitidis.

6. By what laboratory methods may rabies be diagnosed?

7. Define Hygiene.

8. What deleterious gases accumulate in improperly ventilated sleeping-room?

9. If chemical analysis of water revealed the presence of Nitrites and Nitrates would this condemn it for drinking purposes, if so why?

10. What are some of the dangers involved in the domestic use of ice?

11. What conditions and diseases in animals render their flesh unfit for food?

12. Mention some of the adultrations in the preparation of ground coffee for sale in the shops.

J. L. PYLE, M. D.
October 10, 1922. Examiner.

Chemistry and Medical Jurisprudence

1. Describe the process of Gastric Digestion.

2. Tell briefly what you know of Enzymes.

3. What is the reaction of the blood in the condition known as Acidosis?

4. What are the Purin bodies and where do they originate?

5. What is Hemolysis and how may it be produced?

6. What is an Oxide?

7. Differentiate between Organic and Inorganic Chemistry.

8. Define Acid, Base, Salt.

9. Define Matter and tell in what state it may exist.

10. How would you determine that a given sample of water is distilled?

11. How would you determine by examination of a foetus the period of Utero-gestation?

12. A man receives, in a fight, a stab wound in the arm, which at the time or subsequently becomes infected, he develops Pneumonia and dies, what is the cause of death?

W. M. BABB, M. D.,
October 10, 1922. Examiner.

Practice and Pediatrics

1. How would you immunize against diphtheria?

2. Give eiology, diagnosis and treatment of pertussis.

3. Give diagnosis and treatment of broncho pneumonia.

4. Give diagnosis and treatment of pernicious anemia.

5. Symptomatology and treatment of purpura hemorrhagica.

6. Give etiology and treatment of Addison's disease.

7. Give treatment of chronic nephritis with hypertension.

8. Give etiology and treatment of pruritus ani.

9. Give complications and treatment of typhoid fever.

10. Give etiology, diagnosis and treatment of multiple neuritis.

11. Diagnosis and treatment of cerebral apoplexy.

12. (a) What is cheyne Stokes respiration? (b) What are Koplik's Spots?

Answer any ten questions.

B. F. SHUTTLEWORTH, M. D.
Examiner.
October 10, 1922.

Special Medicine

1. Name and describe the ocular media.

2. Give the purposes of the crystalline lens.

3. What is internal strabismus and describe the rational treatment of same?

4. Give etiology and treatment of Otitis Media non-suppurative.

5. What are the functions of semilunar canals?

6. Give etiology and treatment of furunculosis auditus.

7. Describe and give functions of turbinates.

8. Give etiology and treatment of atrophic rhinitis.

9. Give treatment of acute rhinitis and how would you differentiate it from hay fever?

10. Give etiology and treatment acute follucular tonsillitis.

11. Give etiology, signs, symptoms and treatment of membranous croup.

12. Give etiology and treatment of chronic follicular pharyngitis.

V. T. CHURCHMAN, M. D.,
Examiner.
October 10, 1922.

Physiology

1. Give the function of the first cranial nerve.

2. What nerves inhibit the heart?

3. What are hormones. Explain their action.

4. Name the gastric ferments.

5. Give composition of normal urine.

6. Give function of seminal vesicles.

7. Name all ferments that aid in protein digestion.

8. What does diacetic acid in urine indicate?

9. What is the function of the thoracic duct?

10. Locate the speech center.

11. What is an afferent nerve?

12. What is the function of periosteum?

Answer any ten questions.

H. G. CAMPER, M. D.
Examiner.

October 10, 1922.

Gynecology and Obstetrics

1. Give signs and symptoms that would lead you to suspect ectopic pregnancy.

2. Give treatment of post partum hemorrhage.

3. Give treatment of abortion with retained secundines.

4. Give differential diagnosis between acute appendicitis and right salpingitis.

5. What is opthalmia neonatorum and how would you treat it?

6. Give symptoms and treatment of toxemia in pregnancy.

7. Give preparation of patient and technic of dilation and curettement.

8. Give signs and symptoms of early carcinoma of cervic uteri.

9. Define mastitis and give treatment.

10. What symptoms are usually produced by an extreme retroversion of uterus.

THOMAS L. HARRIS, M. D.
Examiner.

October 10, 1922.

QUESTIONS GIVEN BY THE WEST VIRGINIA STATE BOARD OF EXAMINERS FOR NURSES, OCTOBER 11, 1922.

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1. (a) Name the bones of the upper extremities of the body. (b) What is the longest muscle and nerve in the body?

2. Where is the Pericranium? The Pericardium? The Peritoneum? The Perineum?

3. What is the name of the nerve of smell? of sight? of hearing? What is the retina? Name some ductless glands.

4. (a) Define gastric lavage? Proctoclysis. Hypodermoclysis. Fowler's position. (b) Name three acute surgical diseases where prompt diagnosis and operative relief are imperative.

5. What is the usual cause of renal colic? What is hepatic colic? Define Cystoscopy; Hysterectomy; Pyo-Salpinx.

6. (a) Define intestinal obstruction. Mention three causes. (b) What epoch-making discoveries in medicine are connected with the names of, 1: Morton, 2: Lister, 3: Harvey, 4: Jenner? (c) Who was Florence Nightingale?

7. (a) Name the various classifications of food and give an example of each. b) How would you prepare barley water? (c) In the absence of mother's milk, how would you feed a babe one week old? (d) Outline diet for a case of typhoid.

8. Mention three common causes of convulsions in children. What would you do until the Doctor comes?

9. What two diseases would you think of when a child develops:

(a) Sore throat? (b) Catarrhal cough with fever? (c) Rash on the skin?

10. If you were nursing a child with pneumonia and the temperature dropped from 104 to 98 degrees, what would you suspect? What would you do?

11. How would you isolate a case of Scarlet Fever? What precautions should the nurse observe to protect herself?

12. (a) Define Otitis Media; Ilio Colitis. (b) Mention important points to be remembered in the care of opthalmia neonatorium. (c) What is the cause of mouth breathing in children?

13. Define Erysipilas. Mention important points in diagnosis and reason for precautions. Define Puerperal Septicaemia. How prevented? Why should it be isolated? Define Amenorrhoea; Dysmenorrhea; Menorrhagia; Menopause.

14. (a) Dose of Tincture Digitalis; Tincture of Belladonnae; Fluid extract of Ergot; Codein Sulphate; Calomel; Trional; Hydrobromate of Hyoscene; Strychnia Sulphate; Tinct. Nux Vomica; Laudanum; Paragoric; Fowler's Solution of Arsenic. (b) What is the common name of the mild chloride of mercury and the Bichloride of Mercury? (c) Antidote for Bichloride of Mercury? for Lye? for Carbolic Acid?

15. (a) How would you estimate probable time of confinement? (b) Mention two complications of pregnancy. (c) Name necessary articles to be on hand in an obstetrical case. (d) Define: Placenta Praevia; Ectopic Gestation; Fontanelle; Eclampsia; Locia; Meconium.

STATE AND GENERAL NEWS

CABELL COUNTY SOCIETY NEWS NOTES

W. E. VEST, Reporter

Dr. George M. Lyons of Huntington attended the meeting of the Central States Pediatric Society which was held in Cincinnati, October 16th and 17th. While in Cincinnati he was the guest of Dr. Blackfan.

A number of West Virginia Hospitals have been given awards as reported by the fourth annual survey of hospitals of the United States and Canada undertaken by the association of surgeons. Only hospitals of fifty beds or more are inspected and get the honorable award. The following is a list of hospitals mentioned, and in a statement accompanying the report Dr. Franklin H. Martin, director-general of the American College of Surgeons, declared that a marked advance is noticeable in the hospital service throughout the nation, which is especially true of West Virginia Hospitals. West Virginia may well be proud of the institutions listed in our annual report he declared.

The Guthrie Hospital, Kessler-Hatfield and the Chesapeake & Ohio Hospital were Huntington institutions mentioned. Other West Virginia hospitals included in the report were: Beckley Hospital, Beckley; Bluefield Sanatorium, Bluefield; Charleston General Hospital, Charleston; Coal Valley Hospital, Montgomery; Davis Memorial Hospital, Elking; McKendree Hospital No. 2, McKendree; Ohio Valley Hospital, Wheeling; St. Luke's Hospital, Bluefield; St. Mary's Hos-

pital, Clarksburg; Sheltering Arms Hospital, Hansford; Welch Hospital No. 1, Welch; Wheeling Hospital, Wheeling.

Dr. J. C. Matthews and Dr. R. M. Bobbitt of Huntington have opened their Urological Clinic at 421-23 Eleventh street. In their new location they have complete equipment for X-Ray and Serological work in the diagnosis and treatment of diseases of the Genito-Urinary System and Skin.

Dr. A. R. MacKenzie, formerly a member of the staff of the Huntington State Hospital, has opened offices in the Holswade Building, Huntington. Dr. MacKenzie is limiting his work to X-Ray diagnosis and therapeutics together with the deep X-Ray treatments.

Dr. Lindsay T. Vinson attended the Michigan-Ohio State football game in Columbus, October 21st.

Dr. M. B. Crockett, of Big Creek, was a recent visitor in Huntington.

The Fayette County Medical Society held its regular meeting at Montgomery on October 11th, Dr. Horace L. Goodman, of McKendree, in the chair. The following program was rendered:

"The Value of Blood Chemistry to the Surgeon," Dr. Ralph W. Stoneburner, Montgomery, W. Va.

"The Management of Eye Inflammations," Dr. C. S. Smith, Beckley, W. Va.

"The Present Status of Asthma," Dr. Kenneth D. Graves, Roanoke, Va.

"The Management of Hypertension," Dr. William B. Porter, Roanoke, Va.

"The Modern Conception of Amputations," Dr. Robert K. Buford, Charleston, W. Va.

After the program a splendid banquet tendered by the staff of the Coal Valley Hospital was greatly enjoyed. Among those present from a distance were: Drs. K. D. Graves and W. B. Porter, of Roanoke, Va.; Drs. Arthur S. Jones, Walter E. Vest and J. C. Matthews, of Huntington; Dr. Robert K. Buford, of Charleston; Drs. C. S. Smith and A. H. Grigg, of Beckley.

Dr. James F. VanPelt, of Oak Hill, recently visited relatives in Huntington.

EASTERN PANHANDLE MEDICAL SOCIETY

G. P. MORRISON, Secy., Reporter

The City Hospital, of Martinsburg, has started improvements to their Nurses' home, which will accommodate from eighteen to twenty nurses.

Born to Dr. and Mrs. Marvin Porterfield, of Martinsburg, September 14th, 1922, a boy.

A very splendid dinner was given by the Pittsburgh Limestone Co., at their plant, for the medical examiners, at which time better health and sanitary conditions were taken up. Among those present were: Dr. Parlett, the company's representative of Pittsburgh; Dr. W. T. Henshaw, State Health Commissioner, of Charleston; Dr. A. B. Eagle, the local company surgeon.

Dr. Gordon Wilson, of Baltimore, was here in consultation with local Doctors recently.

FAYETTE COUNTY

H. L. GOODMAN, Secy., Reporter

Dr. Jos. C. Brown of Nallen had the misfortune to fracture his arm recently while cranking his automobile.

Dr. C. W. Lemon spent the last week in Richmond, Va.

Dr. W. B. Baker, formerly of McKendree, is now located at MacDonald, W. Va.

Dr. Grissinger, formerly of Kilsythe, will spend the winter in New Orleans doing post graduate work.

Dr. H. L. Goodman, superintendent of McKendree Hospital, McKendree, attended the Clinical Congress of American College of Surgeons, Boston, Mass.

Dr. J. E. Robins, Jr., of Charleston, is relieving Dr. C. W. Lemon, of Claremont, W. Va., while away on his vacation.

Dr. E. J. Grose, of Fayetteville, has disposed of his drug store, and will leave in the near future to do post graduate work in New York.

Dr. W. B. Lewis, of Prince, who was recently shot through the neck, has fully recovered and resumed his practice.

GRANT-HAMPSHIRE-HARDY MINERAL MEDICAL SOCIETY

ARNOLD A. SCHERR, Secy., Reporter

In the four counties comprising the Grant-Hampshire-Hardy-Mineral Medical Society, there are about 38 physicians in active practice, and 27 hold membership in the society, a gain of three over last year.

The many friends of Dr. C. S. Hoffman are glad to see him restored to his usual health. Dr. Hoffman spent his vacation in New York and the New England States.

Dr. H. F. Goodman is on a ten days trip to Virginia.

Dr. Arnold A. Scherr and family spent several days visiting Dr. Wm. B. Scherr and the doctor's parents in Morgantown the latter part of September.

Through the influence of the Grant-Hampshire - Hardy - Mineral Medical Society, the prosecuting attorney of Mineral county made it so warm for "Dr." Fisher of Alaska, W. Va., and G. H. Johnson that they have departed for other climes. Fisher is not licensed to practice in West Virginia, and Johnson is a chiropractor. We are hoping for a simply worded law that will not leave the juries in doubt as to where these cases stand.

LITTLE KANAWHA AND OHIO VALLEY MEDICAL SOCIETY

W. B. RICHARDSON, Secy., Reporter

Dr. E. W. Crooks of Parkersburg has returned from Magnetic Springs, Ohio, where he has been spending his vacation.

Dr. S. D. H. Wise and family have returned from a motoring trip through Ohio and Michigan. Dr. Wise made the trip in his new car.

Dr. R. B. Miller of Parkersburg will leave shortly to attend the Mayo Clinics.

The Little Kanawha and Ohio Valley Medical Society met in regular session Thursday evening, October 5th, at the Y. M. C. A. with a very good attendance present. After the business session, Dr. H. M. Campbell read a paper on the control and treatment of diphtheria. The Doctor explained the Schick Test and the Toxin Antitoxin immunization for diphtheria. This was one of the best papers ever read before The Little Kanawha and Ohio Valley Medical Society.

MARSHALL COUNTY

A. F. COMPTON, Secy., Reporter

Dr. C. G. Morgan left October 20th for a "bull mouse" hunt in Canada. Local physicians are looking forward for the Doctor's return with a lot of "bull."

Dr. H. T. Phillips of Wheeling presented an extremely interesting paper to the Medical Society on "Common Skin Diseases and Their Treatment."

Dr. R. A. Ashworth, who carries many titles after his name, such as Secretary of West Virginia State Medical Association, Marshall County Health Officer, Moundsville's Public School Physician, and Cousin Abe Lilly's right hand man, leaves for Chicago to attend a meeting of State Secretaries, October 15th.

Dr. W. F. Crow of Glenn Easton will spend the winter in Florida.

Dr. D. B. Ealy of Moundsville is driving a new "Red Devil" about the city.

Dr. Wm. G. E. Hill of Tavern has remodeled his office.

Dr. E. B. Staley, who has been located at Pleasant Valley, has moved to Pittsburg, where he will continue his practice.

Dr. E. T. Lake, who formerly practiced in Marshall County, is now located at Cristobal, Canal Zone.

OHIO COUNTY NEWS

HARRY M. HALL, Reporter

The Ohio County Medical Society had its opening meeting for the Fall session at the Y. M. C. A. Auditorium on Friday night, October 13th.

Under the past administration of Dr. Staats and Dr. McGregor as Presidents, the Society has become quite a powerful influence and is acquiring a reputation throughout the Country. To look into the history and methods of procedure of this organization might well be made into a little handbook, and distributed to those County Societies who believe there is no use trying to get a gathering of medical men. Meeting every Friday night—and as a rule right on time—it has an attendance qeual to an ordinary session of the State Society.

Dr. J. F. Baldwin of Columbus, Ohio, spoke Friday on certain cases of "Puerperal Infection." To many men Mr. Baldwin needs no introduction. The talk was described by Dr. W. S. Fulton as years ahead of the times. Dr. Baldwin advises a pan-hysterectomy in these cases—very, very quickly done. Fifteen to twenty minutes is his rule. Next an artificial diaphram made by sewing the peritoneum and the sigmoid over to the brim together with appropriate drainage through vagina. The writer understood him to say his mortality was a little over 30%. Heretofore it has been the rule when these cases were let alone, about 100%.

If you would like to have your County Society sit up in its seats and lean forward like they do when the crash comes in a play, ask Dr. Baldwin to come and talk to you. Whether you agree or disagree you won't soon forget it.

One week a man from the outside is imported, so to speak, and on the next week one or two local men give papers. So diversified has the programme become, and so many have the eminent men been who have spoken that very few pro-

grammes at national meetings present anything which is at once more varied or more practical than these sessions. These facts are presented in order to give to a struggling Society encouragement for increased activity. Two of the younger men now occupy seats of direction, Dr. M. B. Williams, President, Dr. D. M. Aikman, Secretary. Both of these men have had wide experience and it has been the fashion here to now pick on bright, alert and younger men to work out these programmes, for they are arduous and laborious tasks.

Dr. Schwin had to sue one of his patients for his bill. Seventy-five Hundred Dollars was asked and Thirty-six Hundred with interest was awarded. It is too bad that space prevents a complete resume of this case. It should be given at the State Meeting. It would make you stop and think. Dr. Schwin did wonderful work here and yet as he told his lawyer—very famous up here—when questioned: "Yes, Mr. —— if you had worked as long as I did over this patient and did an equal amount of work your bill would have been two or three times as much, and you would probably have been cheerfully paid." Look up and compare what your eminent doctors are receiving for saving life, and what your eminent lawyers are getting for saving someone to be just within the law. Compare, too, how long they were in receiving an education and how long you were.

This reminds us, have you any lawyers in your locality who in the last few years seem to delight in making or trying to make fools out of doctors on the stand?

One of the recent additions to the ranks of Wheeling physicians is Mrs. Dr. Frank LeMoyne Hupp. We put the Mrs. before the Doctor because the Doctor's wife is one of those charming women who never surrendered any of her effeminancy in becoming a good physician.

Dr. Robert Reed is away on a well earned vacation.

Wheeling now has a very large, fine, and varied assortment of handsome young unmarried physicians and surgeons, and any one of them will trade the above qualities in exchange for the beauty and charm of some young heiress who does not want to go through a nurse's course and yet wants to help the maimed and AFFLICTED — THE HALT AND THE BLIND.

Wheeling Hospital in charge of the Sisters of Saint Joseph now has its full quota of internes, which together with an unusually efficient laboratory staff, makes it one of the very best hospitals in the State. The writer believes, too, that for quick, alert and finished service in the operating room this hospital will rank among the highest Catholic Hospitals in the country.

RALEIGH COUNTY

CHARLES S. SMITH, Secy., Reporter

Dr. and Mrs. J. A. Walker of Helen left recently for Louisville, Ky., where Dr. Walker will spend some time doing post-graduate work. During his absence Dr. George Lounsbery will have charge of Dr. Walker's practice.

Dr. George Fordham of Wyco has returned from a stay of several weeks in Boston, Mass., and other eastern points. Dr. Fordham is intensely interested in public health work and went East with a view of

getting some "new pointers" to enable him to make Wyco 100% perfect from a health standpoint.

Drs. J. H. McCulloch, A. H. Grigg, F. B. Puckett, C. S. Smith of Beckley, B. B. Richmond of Cranberry and A. G. Bowles of Glen White attended the October meeting of the Fayette County Medical Society in Montgomery and report a pleasant meeting.

Dr. and Mrs. I. M. Fisher of Stotesbury have returned from an extended visit to points in Virginia and North Carolina. We understand that this was a "honeymoon" trip, as Dr. and Mrs. Fisher have only been married a few months and this was the first opportunity the doctor has had to leave his practice.

Dr. Robert Wriston spent several days recently in Baltimore on professional business.

Dr. and Mrs. J. H. Hoskins of Beckley have returned from New York where the doctor has been taking a post-graduate course.

"Grandpa" Coleman, the aged father of Dr. J. E. Coleman of Beckley, is seriously ill at the home of Dr. Coleman.

Dr. W. C. Simmons is now located at Slab Fork, taking over the practice formerly under the care of Dr. F. L. Banks, who has moved his residence to Virginia. The profession regretted very much to lose Dr. Banks, but we are proud to gain Dr. Simmons and wish for both splendid success in their new homes.

The Raleigh County boys are getting things lined up somewhat preparatory to pulling off the BIGGEST and BEST medical meeting next year in the history of the West Virginia Medical Association.

Washington, Sept. ——Director Charles M. Sartain of Alabama, in a report to Prohibition Commissioner Haynes, states that during the session of the United States district court just closed seventy-five cases were tried, $10,906 in fines collected and thirty-five of those convicted placed under bond, to be forfeited in case of a second violation within the next three years.

"The special term of the court was made necessary because of the many prohibition cases docketed, federal officers from other parts of the district coming here to cooperate with the local agents," says Director Sartain. "During the special term more cases were constantly added, Divisional Chief Day of Mississippi, Louisiana and Alabama bringing in twelve men from New Orleans and serving about twenty search warrants while in Mobile, which resulted in many arrests.

"Three persons were fined $450 each and warned that a second offense would mean a $2,000 fine and five years in the penitentiary at Atlanta.

"Two juries were kept busy durthe last two weeks of the session and Judge Ervin commended them for the fair and impartial attitude which they displayed in rendering decisions.

"Because of the many cases dismissed because of illness of the defendant who furnished a physician's certificate, Judge Ervin addressed a letter to the Mobile Medical Society calling attention to the apparent promiscuous issuing of these

certificates and stating his desire that the relations which have always existed between the bench and the medical society remain cordial, based upon mutual confidence and trust. He further asked that members of the society be informed of his desire that certificates state the disease from which the patient is suffering and the physician's opinion as to his ability to attend court."

Washington, Oct. 2.—Following a determination by officials in New York state to investigate all physicians who disregard the regulations governing the use of prescription books, Dr. William M. Winters, of Oneida, N. Y., has been cited on charges of issuing prescriptions without physiclal examination as required by law and orders have been issued for the discontinuance of all prescription books to him. Efforts are being made to determine by whom prescriptions already issued have been filled, and to whom they were issued. Agents have been working on the case for some time, it is said, and this is the first of a number where investigations have been in progress.

At Baltimore, Md., Dr. Henry G. Branham was fined $100 for unlawfully issuing a prescription for intoxicants without keeping an official record for federal authorities.

COUNTY SOCIETY REPORTS

Sept. 14, 1922.

The first meeting after our summer recess was opened by the President at 8:30 p. m. in the assembly hall of the Frederick Hotel.

The subject of physical training in the public schools, was brought up for discussion by Dr. Bloss. He said, in opening the subject, that parents were bringing their children to get excuses from this training. Some were really not physically able to stand the exercise and others just wanted out for no really good reason. Dr. Bloss thinks the severe exercise one day and none at all the next day not good proceedure.

Dr. Vest reports that he has had quite a bit of trouble with children wanting excuses. In talking with Mr. Graham about the conditions, Mr. Graham said he would be very glad to have a committee appointed from the medical society to make suggestions as to the best way to regulate the excusing of pupils from training.

Dr. Wells is not in favor of appointing any committees. He thinks that the children probably misrepresent the matter. It would be a good idea to have Mr. Graham or his representative to come before the meeting and explain to us the methods in use.

Dr. Cronin thinks it should be left to the school doctors to excuse pupils from training. He refers all requests for excuses to the school doctors.

Dr. Gerlach moves that we leave the excusing of pupils to the school physician, and that we go on record as favoring physical training in the schools, seconded by Dr. Swezey.

Dr. Watts and Dr. Keesee both think the family physician knows best when pupils are to be excused and are not in favor of the motion.

A vote on the motion shows 12 for, 4 against. Motion carried.

A letter read by the Secretary states that Dr. Rudeman is a mem-

ber in good standing, of the Cincinnati Academy of Medicine. Dr. Vest moved that he be accepted by transfer as a member of Cabell County Medical Society. Motion passed.

Dr. C. F. Hicks then presented an excellent paper, "A Plea for Early Operative Measures in Gall Stones." The paper was well discussed by both the surgeons and the medical men. The following men discussed the paper: Drs. Wilkinson, Cronin, I. C. Hicks, Fitch, Rader, Biern and Belcher. The consensus of opinion of the medical men was to the effect that all patients should be given a chance with proper medication before operation was advised. The surgeons advocated early operation with complete removal of the gall bladder.

Dr. Hodges moved we have a banquet the fourth Thursday in this month. Seconded by Dr. Klumpp. Passed. Committee: Drs. Klumpp, Hodges, Biern.

Members present: Drs. C. F. Hicks, Wilkinson, Pepper, Pryor, Wells, Belcher, Vest, Ruddeman, Watts, Keesee, Klumpp, Morrison, Beckner, Swann, Bloss, Biern, Swezey, Hodges, Brammer, Willis, Cronin, E. B. Gerlach, H. P. Gerlach, Rader, Yost, Fitch, Miller, Walker, I. W. Taylor, Hunter.

Sept. 28, 1922.

The Cabell County Medical Society met in the dining room of the Frederick Hotel to enjoy a banquet. The president read an article of incorporation to the society, asking that any errors or additions be pointed out. There were no additions or errors found and the lawyer will be advised to go ahead with the incorporation of our society as a scientific body.

An excellent feed was then set before the members, several after-dinner talks were made, Dr. Hawes acting toastmaster in his usual good form. Everybody had a good time and a vote of thanks was extended the committee who attended to the banquet.

About fifty members enjoyed the eats.

W. C. SWANN, Secy.

REPORT OF SEPTEMBER MEETING OF THE RALEIGH COUNTY MEDICAL SOCIETY

The Raleigh County Medical Society was delightfully entertained Thursday evening, September 28th, by Dr. and Mrs. B. W. Eakin at their home in Tams. After a most delicious and enjoyable dinner was served to those present promptly at eight o'clock, the meeting was called to order by the President, Dr. Eakin. After the disposal of routine matters, Dr. P. G. Hurst of Oceana, Dr. J. A. Walker of Helen and Dr. C. W. Simmons of Slab Fork were elected and welcomed into the society. The principal business to come before the society was that of formulating plans for entertaining the State Association in Beckley next year. It was agreed to appoint a committee of twelve who will have charge of the meeting. There will be twelve sub-committees—one man on each committee. Dr. J. E. Coleman was appointed Chairman of the committee with the following as members: Drs. Grigg, Dupuy, D. B. Jarrell, Wriston, Smith, Fisher, Johnson, Banks, Tieche, Campbell and Cook. It was

voted to assess each member $25.00 to defray the expense of entertainment. It was also agreed that the committee would issue a folder about May 1st, 1923, which would contain a cordial and fraternal invitation to each member of the State Association to attend the meeting, and also include hotel, railroad, automobile and general information. The Secretary announced that he had been successful in arranging for $900 worth of commercial exhibits which would aid materially in financing the entertainment. It was agreed to invite Dr. George W. Crile of Cleveland and Dr. Samuel Gant of New York as guests of the society at the State Association. Interesting case reports were made by the following: Drs. Grigg, Lounsbery, Cook, Eakin, Smith and B. B. Richmond. Dr. J. H. McCulloch was called on to explain the State Compensation Law as it affects the physician. He entered into detail and explained its function. Just prior to adjournment the society by a rising vote extended to Dr. and Mrs. Eakin our sincere thanks for their delightful entertainment and generous hospitality. The following were fortunate in being present to enjoy the meeting: Drs. E. S. Dupuy, J. A. Campbell, U. G. Cook, B. B. Richmond, B. W. Eakin, J. H. McCulloch, J. A. Walker, J. E. Coleman, A. H. Grigg, T. F. Garrett, O. B. Lynch, A. U. Tieche, C. W. Simmons, George Lounsbery, B. F. Puckett, C. S. Smith, and G. W. Johnson. Mrs. E. S. Dupuy of Beckley was present and assisted Mrs. Eakin in entertaining the doctors. The society is very enthusiastic over the fact that we will entertain the State Association next year and nothing is going to be left undone to make the 1923 annual meeting the BIGGEST and BEST in the history of the West Virginia Medical Association.

CHARLES S. SMITH, Secy.

MEDICINE AND SURGERY

Dr. N. Kritch, Moscow woman physician, has announced the discovery of the typhus germ and her successful growth of this organism in pure culture at the laboratory of the Sakalinchesky Epidemic Hospital. This discovery was announced before a meeting of the bacteriological section of the Moscow Medical Society at the Preobrazbenskaya Hospital on April 24, 1922.

In collaboration with Dr. V. Barikan, Director of the Microbiological Institute, Moscow, Dr. Kritch has been working on the etiology of typhus fever since the autumn of 1916. They have isolated the same organism from the brain and spleen of 150 cases of clinical typhus fever one hour after death, after inoculating 200 guinea pigs they have recovered the organism in the same number of cases. It has also been found in cultures obtained from over 2000 infected body lice. The organism is comparatively scarce in the blood of typhus fever cases but exists in great numbers in the internal organs, particularly the brain and spleen of humans and guinea pigs, and in the intestinal epithelum of the infected body louse.

The Microbion Typhi Exanthematici in young cultures is found in the form of a disc or biscuit shaped coccus, sharpened on one or both sides, its dimensions vary from .4 to 1 micron in length, the breadth

being one to two thirds of the length. The organism is gram negative and is a facultative anaerobe.

The organism cannot be grown on the usual laboratory culture media. It can only be grown and preserved in media composed of a sterilized emulsion of the pancreatinized spleen, liver or intestine of an individual recently dead from typhus adding the typhus culture and a film of paraffin oil to make air tight.

Dr. Kritch also uses a brain culture on agar, getting a luxuriant growth of organisms in 24 hours which resembles the yellow Staphlococcus, but this growth dies in fourteen to twenty days and to be preserved must be placed in the spleen media described.

Inoculation of guinea pigs with cultures after a varying incubation period of four to fourteen days gives almost constantly a very characteristic temperature curve which terminates in six to twelve days. These guinea pigs on autopsy show a very characteristic typhus pathology. a quite marked passive congestion of liver spleen and kidney and edema of the brain. There is a marked prolifiration of the Lymphoid elements surrounding the small vessels in these organs with some destruction of the intimal lining.

From these infected pigs the characteristic organism can be obtained constantly from the brain and spleen. Further work on the immunity reactions of this organism has been undertaken and is now under way. It is extremely probable that a protective vaccine can be prepared which will afford immunity to this disease as typhus is a disease one attack of which confers lasting immunity.

Should this organism prove to be the cause of typhus fever it marks an epoch making discovering in preventive medicine and will deserve to rank with Jenner's discovery of smallpox vaccine, etc.

Typhus fever is also known by the names of famine fever, hospital fever, spotted fever, jail fever and ship fever. In Germany and Russia it is called exanthematic typhus, in contradistinction to abdominal typhus (typhoid). This disease has been epidemic over Russia the past four years. It is estimated that during this period there have been seven million cases.

Typhus has been one of the great epidemics of the world whose history is written in those dark pages which tell of the grevious visitations of mankind, by war, famine and misery, etc.

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ATROPINE AND THE HYPERTONIC INFANT

Read at Annual Meeting of West Virginia Medical Association, Huntington, May, 1922

By DR. A. A. SHAWKEY, Charleston, W. Va.

Hypertonicity or Hypersensitiveness in infancy is a well established entity, typically exemplified and widely studied in the form of pylorospasm but not largely considered in the form of less marked spasms of other portions of the gastro-intestinal tract.

Much has been written of pylorospasm, the chief demonstration of hypertonicity, and there has been much discussion as to whether or not pylorospasm bears an etiological relation to the more serious condition, pyloric stenosis; as to whether they are different degrees of the same condition or whether they are distinct and independent pathological entities bearing no relation whatsoever to each other.

With all these discussions this paper has nothing to do, nor have we an opinion to express at this time. We have, however, observed that the two conditions may and do sometimes co-exist.

The purpose of this paper is to discuss some of the less commonly recognized demonstrations of hypertonicity, and one of the methods of treatment.

The hypersensitive infant is one in which the autonomic branch of the reflex nervous system responds abnormally to the ordinary or normal stimuli, chiefly manifested by exaggerated gastric and intestinal peristalsis, colic and expulsive vomiting, brought on by administering the normal diet at the normal periods.

It seems to be commonly considered that these exaggerated contractions are limited to the stomach and the pyloris. That this is not true is shown by the fact that very often, immediately after feeding, the outlines of the intestinal folds

are distinctly visible, in rythmic contractions, through the rather thin abdominal wall, even when the transverse gastric peristaltic waves are not visibly present; and this occurs before food has passed the pyloris in any considerable amount if at all, showing that the over active peristaltic waves pass on from the stomach to and along the intestine and probably through its entire length.

This should produce an evacuation of the bowel contents, but it does not, and the question may very properly be asked why does it not?

The answer is that the anal sphincters, partaking also of this hypertonicity, give an exaggerated response to this stimulus and remain firmly closed. This can be easily demonstrated by digital examination of the anal sphincters.

It will also be noted that this type of infant is considered to be constipated, but that it really is not constipated though the bowels rarely, if ever, evacuate themselves spantaneously.

When the bowels are evacuated either normally or in response to artificial means, it will be noted that the stools are generally soft or even semi-liquid. Almost never hard or even solid masses.

The hypertonic infant is likely to cry a great deal and to be considered a colicy baby, with the result that not infrequently after the entire list of anti-colic and carminative remedies have failed, the conclusion is reached that the mother's milk does not agree and the baby is started on a round of proprietary foods only to find that all these disagree also.

This is not a true colic, due to the passage of gas through the intestine, but is a colicy pain due to the over active intestinal peristalsis, and is exaggerated by the infant's hypersensitiveness to pain.

It is to be noted that this type of infant rarely frets or cries lightly as does the ordinary child, but when he cries he screams.

It is also worthy of note that this type of child is a very active child and a very strong child; even to raising his head off the pillow in the first few days of life.

There is in all probability, a direct relation between hypersensitiveness in infancy and the troublesome cases of enuresis in early childhood, with which we are all too familiar.

For the more marked cases, those of pylorospasm, there are various methods of treatment; such as fat free milk feeding, alkalinization of the food, thick cereal feeding, etc. Of these it is not our purpose to speak, but as our subject indicates we do wish to discuss briefly the use of atropine sulphate in the various types of this condition.

If these conditions are due to an over excitable nervous system, then obviously, if a drug can be found that will have a soothing and quieting effect upon this nervous system, and at the same time be harmless or comparatively so, this should be the treatment of choice.

In atropine we have such a drug. We do not mean to say that atropine is absolutely harmless in its effects or universally certain of its results. We know of no such remedy for any condition. But used with judgment and discretion, atropine is as harmless and as efficient as any other potent drug; and if

unpleasant symptoms do arise from its use, they usually pass off in a few hours without harmful results.

Some writers advocate using up to a total daily dose of 1/16 grain of atropine even in very young infants. Personally we doubt if this is either safe or necessary, except possibly in very special and rare cases.

We recall one case where very serious symptoms followed 2 or 3 doses of .002 grains of atropine given at 3 or 4 hours intervals, and we believe that this amount contributed very materially to the death of this child.

We think it is best to begin treatment with .001 grain and in very young infants with one half of this amount, and increase gradually to 3 or 4 times this dose if necessary.

Careful instructions should be given to watch for flushed face or over dilated pupils as an indication of a maximum dose and to temporarily reduce the dose if these symptoms are severe.

A few case reports will serve to illustrate our arguments:

My study of this subject was suggested by the following case: Baby C. First child of healthy parents, delivered at term, breast fed at regular intervals. Began to vomit when three weeks old, the vomiting expulsive in character, soon after nursing, and growing progressively worse until seen at age five weeks. At this time it was vomiting promptly after each feeding and had lost one pound in weight in the preceding week, the second week of vomiting. The so-called constipation was marked. Gastric peristaltic waves were typical. Emaciation was already evident. Atropine sulphate was prescribed in doses of .001 grain every three hours, 15 minutes before feeding. Baby did not vomit over five or six times altogether after the beginning of this treatment. This treatment was continued only three weeks the dose being gradually reduced during the third week after which it was discontinued, by the mother on her own initiative. There was never any recurrence of the vomiting. The so-called constipation was also entirely relieved. Some weeks later there was a recurrence of the constipation which was promptly relieved by a few doses of the atropine. There was a second recurrence of the constipation some months later which was also promptly relieved by the same treatment.

This was a typical case of hypertonicity with pylorospasm and sphincterspasm, with unusual results of treatment.

Cases 2 and 3. Twins, nine weeks old. Cried a great deal. Stools contain curds. Constipated. Not gaining. Bottle fed. Hypersensitive to touch or handling. Gastric and intestinal peristaltic waves lightly visible after feeding. Very active babies, trying to hold up their heads, etc. Treatment: Atropine sulphate grs. .001, 15 minutes before each feeding, every three hours. All symptoms very promptly relieved. Babies happy and comfortable. Curds disappeared from stools. Normal gain in weight quickly established.

Case 4. Baby R. Twelve weeks old. Breast fed. Cried much. Constipated, with soft stools. Some curds in stools. Not gaining or gain-

ing very little. Treatment: Atropine sulphate, Grs. .001 fifteen minutes before each feeding, every three hours. Results: Stools normal. Baby happy and comfortable. Normal gain. A few days later the mother phoned, "I have a real baby now." Later there was a return of the so-called constipation in this case also, which was promptly relieved by the temporary return of the atropine treatment.

Case 5. Baby S. Three weeks old. Breast fed. Well nourished. Constipated, with soft stools and few curds. Strong active baby. Cried a great deal, even to keeping nurse and mother awake all night. Gain below normal at its age. The mother's milk tested normal. Treatment: Atropine sulphate, Grs. .001 fifteen minutes before each feeding, every three hours. Results: Symptoms relieved. Normal gain established. Baby comfortable and happy.

These are only a few rather typical cases selected from many, to illustrate the points that we are trying to present.

Not all cases react so favorably by any means. Many cases do not react favorably at all, and there are certain good reasons for this. In the first place, atropine to be potent must be fresh. If a stale drug is dispensed on your prescription, your results will be disappointing. In the second place, the possibility of mistaken judgment in borderline cases will account for a certain number of failures, as is true in any line of treatment for any condition. In the third place, the personal equation of the patient will come in for consideration as explaining some of the failures.

There is another class of cases, larger than generally considered and very important, which must be differentiated from these. I refer to those breast fed babies who suffer allergic reaction to some food protein in the mother's diet.

These infants while they may be well nourished, and fat, cry a great deal with colic and have many curds in the stools. Regulation of the feeding hours gives no relief and examination shows the mother's milk normal. Scratch tests will show the infant to be sensitive to one or more proteins in the mother's diet. Most common of these is the egg protein. While baby may be sensitive to one or several other proteins it will be found that almost if not invariably it is sensitive to the egg protein.

The real purpose of this paper is to stimulate interest in, and study of, certain troublesome symptoms or conditions in a definite class of uncomfortable and unhappy infants, in the hope that it may be helpful to some of you in relieving and making happy some of the little sufferers and their unhappy mothers.

If it serves this purpose in any degree, it has performed its function to the satisfaction of the writer.

GROUP PRACTICE MENACE

Read Before the Logan County Medical Society

J. E. McDONALD, Logan, W. Va.

There are over 80,000 physicians in general practice today and all are contributing to the publication of various medical journals and the

great majority of these journals are loaded with the highly technical proceedures of the Group Practice specialization of the various cities having hospital and laboratory service for this work and most of this is useless to most of us.

I am about as well prepared to derive benefits from journals as the average practitioner or say 80% of the men in general work and am the recipient of several of the journals from which I derive very little benefit. Take the Archives of Internal Medicine and it is practically a misnomer for most of us and the theories are the ones obtained as the end product of this so called Group Practice. A great many of the case records are inaccurate, because taken from patients rushed from the country and small towns into these hospitals at which the patient is absolutely unable to leave mental impressions alone, the result being an output of metabolism which gives false values in information.

I have arrived at the conclusion that it is time to call a halt on the expenditures the general practitioners are forcing upon the public for many of these examinations in these unnatural surroundings. First, there is so little to do in most cases in the way of drug treatment that avails much, surgical suspects partly excepted but not all. Second, the information obtained from these group examinations of a week or ten days, in the surroundings of modern hospitals, which depend on these specialized laboratory, seriological, and X-ray reports obtained at a time when the mind is exerting its greatest influence on involuntary body phenomena making it impractical or questionably correct. Third, it is unquestionably building up so much specialism at the expense of the public that we are forcing many to experiment with Quacks or buy some well advertised patent or proprietary drug with the hope of avoiding this great monetary outlay and many times as we all know the time equation (delay) brings about the cure and the quack or drug gets the credit.

The general public are not all fools and it occurs so often as is demonstrated by the well-to-do quacks and the immense sales of drug-to-patient cures, besides they are daily learning that this expensive Group Practice routine we are so rapidly adopting is a benefit in a minority of cases, they are led by force of circumstances and this experience, to cut the expense if possible.

I am fully convinced that an average doctor, equipped with X-Ray, microscope and a small laboratory can by reason of his continued contact, knowledge of habits, environment, ancestry, and progeny, of his patient derive more accurate information than any group specialists, who or wherever they may be. The natural surroundings give information true to form while strange and unusual surroundings give many times things indicative of pathological conditions which do not exist. Exceptions noted.

There is an ART to the diagnosis of disease not teachable but must and can only be acquired by years of careful practice. Laboratories, bacteriologists, seriologist and radiographer can never supply, and this alone admonishes us it is time to call a halt for attention to the

fast growing Group Specialists, who, in many cases lack for experience in many ways but who exacts a fee out of proportion for his work compared with what the man of years of general practice and experience gets. His reports are suggestive but indefinite and in most cases only emphasize facts already gleaned, otherwise you are yet to exclude the suggestions inapplicable.

Only a few years ago Opsonic Index, Calories, X-Ray, HGB, RBC, WBC and differential had front pages but now Phenalphthalein Output, Metabolism, Vitamines, Antigens, Blood Sugar, Nitrogen and Urea have been added so when your patient passes the Group of about eight he is minus $25 per, or $200. He now takes all these group reports to one of the Big Group who referred him and he looks them over, writes a R for an alkaline digestive or some simple remedy and says $300. The patient next goes over and pays his hotel or hospital bill and goes back home. Out $600, two weeks time and on the same treatment his home doctor prescribed.

It's amazing the expense we are letting Group Specialists incur through this journal education by reading such cases and following out lines suggestive of this line of BULL. This questionable expediency leads to the evasion of the doctor and right it should. These cases of reference should be carefully selected. The routine of this rapidly growing Group Specialism must have better consideration else the public will demand that the districts and county shall establish and maintain a group board at public expense. The moderate liver today hasn't a chance for this service except at the free clinics in large cities.

The legal profession is drifting in the same channel until now the man of small means hasn't a look in and it is only a short while until bar appointment will cease and the public demand a public counselor be elected and paid by the public for the purpose of defending and exacting justice.

Proprietary drug houses are relegating the knowledge of materia medica and therapeutics to the background and doctors are catering to the "shot-gun" group put out by drug manufacturers whether they contain four or ten different drugs.

"Just where are we goin' anyhow?"

SOME ANO-RECTAL INFECTIONS

By E. H. TERRELL, M. D.
Associate in Surgery, Medical College of Virginia, Richmond, Va.

The late editions of Gray's Anatomy describe the rectum as beginning above at the attachment of the mesentery in front of the third sacral vertebra and extending to the level of the semilunar valves of Morgagni. It is a large dilated pouch, which serves as a reservoir for the intestinal contents. The anal canal is the constricted outlet for the bowel, and is about one inch in length. It is situated between the valves and the skin margin. Its chief function is that of controlling the fecal discharges. While these organs have definite anatomical

boundary lines, it is customary, except in very scientific discourses, to speak of the anal canal as the lower part of the rectum. In fact, the older anatomists described it as such. To save confusion it is well to follow the usual custom.

The terminal portion of the intestinel tract, that is the last five or six inches, is affected by disease oftener than any other part of the body, except probably the nose and throat. Many and varied pathological conditions are to be found here, and of these 85 to 90 per cent occur in the constricted part of the gut, or within its lowest one inch.

The lower part of the rectum and anal canal are subjected to frequent injury because of their situation and anatomical construction. They are surrounded by strong bands of muscles, the external and internal sphincters and levator ani. These muscles exert considerable pressure upon the canal at times in forcing through large and hard fecal masses which have collected in the ampulla, immediately above it. While it is granted that traumatism plays no small part in the causation of ano-rectal diseases, I am convinced that this is often assumed without sufficient justification. In a study of the etiology and pathology of diseases incident to this region there are found other factors which have a decided influence and should receive consideration. In connection I desire to call your attention especially to the ano-rectal line, or the dividing line between the anus and the rectum. Anatomically and embryologically the parts are often defective at this point. In early fetal life, there is a thin septum between the hind gut and the proctodeum. Later this septum is absorbed and a fusion takes place, leaving a continuous tube. As a result of the fusion small folds of mucous membrane remain which constitute the so called valves of Morgagni. The mouths of these valves look upward and it is through the bottom of them, as was first suggested by William Beach in 1909, that infection often gains entrance.

Sometimes there seems to have been an incomplete blending between the proctodeum and hind gut, when, from unusual stress or injury, a separation of the tissue takes place. In that case a pocket or diverticulum is formed which offers a most inviting site for pathogenic organisms.

Again, the anal canal is covered by a transitional epithelium, called the muco-cutaneous membrane. This resembles, to some extent, both skin and mucous membrane, but has none of the resisting powers of either, although it has a rather abundant blood supply. The low resisting power of this membrane, together with the lack of natural drainage from the canal, on account of its contour, accounts for the chronicity of many infections of this region.

Most of the diseases in and adjacent to the anal canal are due to infectious organisms which have gotten beneath its covering membrane. As stated above, this may be through an abrasion of the surface, through the bottom of an anal valve or through the separation of the tissues of the ano-rectal line. The results of a submuco-cutaneous infection are varied, depending upon the character and virulence of

the invading organisms and upon the kind of tissues attacked. It may be assumed that the action of these germs are generally attenuated or abscess formation would occur oftener than it does. It appears, too, that not infrequently their action is selective.

Between the covering of the canal and its surrounding muscles is a thin layer of fibro-cellular tissue of great importance. This is seldom referred to in works on rectal diseases, but is mentioned in Gray's Anatomy. It is sometimes seen in operating in this region and occasionally appears as a grayish, glistening membrane at the base of a fissure or ulcer. Without this rather effective barrier, few would escape deep and serious infections of the cellular tissue around the anus and rectum. Infections which are limited to the inner surface of this fascia are by far the more numerous and may be termed superficial. Those that break through constitute the deep infections, as in ischio-rectal or retro-rectal abscesses. The deep gross lesions are usually recognized and more or less understood. The superficial ones the surgeon generally considers of minor importance and gives them little consideration. They are often treated empirically, with little regard to the etiology, pathology or preservation of function. From a physiological standpoint the rectum and anal canal are normally a perfectly functioning organism and irreparable damage may be done by injudicious treatment.

I wish to consider briefly a few of the infections which are limited to the inner surface of the anal fascia. They are often of low grade and so concealed that a painstaking and minute examination is necessary to locate them. Usually they are insidious in their onset and run a chronic course, but are subject to acute exacerbations. I shall attempt to show that the pathology, as the result of such infections, varies greatly, depending upon several factors.

Among the first noticeable effects of a concealed infection is a spasm and irritability of the sphincter muscles. This condition generally is not observed in the early stages, for it produces no symptoms referable to the rectum, but retards peristalsis and thereby intreferes with elimination from the intestinal tract. As is well known, a contracted sphincter is a common cause of constipation. The usual treatment is a forcible or gradual dilatation of the muscles. This relieves the condition for a short time only, for the cause has not been removed, and the contraction soon recurs. Rational treatment consists in incision and drainage of the infected area. In this way permanent relief may be obtained.

If the infection has entered through the bottom of a valve, as it does most often, hypertrophy of the valve takes place, producing what is known as a papillitis. When only moderately enlarged these papillae produce no distinct and characteristic symptoms. This, however, is suspected sometimes when taking the patient's history, for he will be unable to describe his discomfort. The idea conveyed is that he is more or less conscious of the rectum without knowing why. When the valve has been diseased a great while, it may become quite large and elon-

gated. It then resembles a polypus or an internal fibrous hemorrhoid and may protrude from the anus. An hypertrophied papilla is supplied with abundant sensory nerves and when caught within the grasp of the sphincters causes acute pain. This pain is sometimes referred to the back or lower abdomen.

Infectious organisms, once beneath the covering of the canal, have a way of burrowing downward, very much like a mole does under the ground, forming a channel or sinus. This is a slow process, as a rule, and, if uninterrupted, will eventually end blindly under the skin on the outside of anus. The muco-cutaneous tissue over such a channel gradually hypertrophies, and after a time a large indurated fold is formed which constitutes a fibrous hemorrhoid. When the infection has extended into and attacks the skin at the anal margin an external hemorrhoid or skin tag is the result. An external hemorrhoid may follow, or be the remains of a thrombotic hemorrhoid, also, as will be shown later.

The skin at the anal margin, when healthy is very elastic, and, like rubber, allows considerable stretching without rupture. When inflamed, however, it loses its elasticity and becomes brittle, so, that it breaks easily. In my opinion, an inflammation of the skin, through a submuco-cutaneous infection, always precedes the break which results in fissure. This rupture begins in the skin at the anal margin, and gradually extends upward in a line with the infected sinus. Any one, who cares to do so, can demonstrate, with a probe bent at an acute angle, the sinus running beneath a fissure. A tear in a healthy anal canal will heal as readily as a similar break on the surface of the body. This has been observed frequently after instrumentation or operations of various kinds in this region. The reason a fissure does not heal spontaneously, is not only because of the contraction of the sphincters overs it, but because of inflammation beneath and above it and because there is lack of drainage.

If the etiology of fissure, as I have stated, is correct, and I am convinced that it is, the treatment resolves itself into obliteration of the sinus and drainage. The point of entrance of the infection, usually at the ano-rectal line, must be sought, and the sinus incised throughout its extent. The edges should be trimmed and the parts allowed to heal from the bottom. It is unnecessary to incise the muscles. After drainage is established the muscles will relax and healthy granulations soon appear. When a fissure has existed for some time the tissues surrounding it become thickened and indurated. Below is often the skin is hypertrophied, forming what is known as a "sentinal pile." This interferes with drainage and should be excised when operating upon the fissure.

Many theories have been advanced as to why fissures occur oftenest at the posterior commissure. Pennington, of Chicago, has made some experiments along this line which seen to prove that because of the decussation of the fibres of the external sphincter muscles posteriorly the parts receive less support here than elsewhere. In my opinion, the comparatively limited blood

supply in the posterior commissure is another factor. This renders the tissue less immune to infection.

Fissure is not the only result of a chronic submuco-cutaneous infection, but there are other conditions with practically the same etiology. We have called attention to the fact that fissures appear most often in the posterior commissure, where the blood supply is very limited, and that the break occurs because of the inflamed condition of the membrane, which becomes inelastic. If an infected sinus or pocket occurs on the lateral walls of the canal, where the blood vessels are numerous, the inflammation is likely to attack them. An inflamed blood vessel, like the skin, becomes inelastic and brittle and a slight strain at that point causes its rupture. The blood then flows out until it is stopped by its own pressure, forming what is generally known as a thrombotic hemorrhoid. It appears suddenly as a bluish tumor in the skin and is nothing more or less than a hematoma. It should not be called a hemorrhoid at all. It is usually rather painful because of pressure of the clot on sensitive and inflamed nerves, which are abundant at this point. Sometimes instead of the rupture of a single vessel, many small capillaries under the skin may be involved. This causes a sudden swelling of the skin and constitutes what is generally termed an acutely inflamed external hemorrhoid. When a thrombotic, or a newly formed external hemorrhoid, is not treated a more or less permanent thickening of the tissues at the anal margin is left. This is one of the causes of skin tags, so often observed.

Simple incision and turning out of a clot in a thrombotic hemorrhoid, as is ordinarily practiced, usually gives almost immediate relief of the symptoms, because the pressure is relieved. There is often a recurrence of the trouble at a later date, however, because the source of the infection has not been removed. As in the treatment of fissure, the sinus which leads to the hemorrhoids should be incised and drained also. Some individuals are subject to frequent attacks of thrombotic and external hemorrhoids. Examination of such patients may show as many as four or five of these blind sinuses in different parts of the anal circumference. An incision through each tract is the only means of curing permanently such a condition.

About ten years ago, Dr. Dwight H. Murray, of Syracuse, now deceased, brought forth the idea that pruritus ani is caused by the presence in the tissues of a specific organism, the streptococcus fecalis. As far as I know, however, he made no attempt to explain how the germs enter the skin or why they remain there indefinitely. William Beach, in his paper of 1909, previously referred to, suggested an infection through the anal valves as a probable cause of pruritus. Earle, in his book on rectal diseases, concurs in this opinion but states that Charles Wallis, of London, was probably the first to call attention to this factor. In my opinion, the infecting agent usually enters through a valve but it may be through a congenital diverticulum or an abrasion. In either case, a channel is found which leads downward under the skin. The tissues

surrounding such a channel, including the small nerve filaments, as they break into the skin are kept in a state of chronic inflammation. Itching, the chief symptom of pruritus, is simply the means which these nerve endings have of manifesting their irritation. The same condition in a large nerve makes itself known by pain of the affected part. Pathologically pruritus and pain are identical.

During the past three years, I have treated more than a hundred cases of pruritus ani by incision and drainage. Approximately fifty per cent of them have been completely cured. Twenty-five per cent were markedly improved and the rest apparently were not benefitted. I must admit that my knowledge of dermatology is not sufficient to enable me to differentiate always between the pruritus of a strictly infectious nature and the various eczemas. To me it has been quite a problem. Then too, in severe and long standing cases the walls of the canal have become so thoroughly undermined that it is difficult to eliminate all the infection without destruction of more tissue than good judgment warrants. Preservation of function must be considered at all times.

I believe the time is not far distant when the treatment of this very prevalent and annoying malady will be greatly simplified. At the last meeting of the American Proctologic Society much was said to justify this belief. Methods suggested at this meeting are being tried out, but the number of cases treated and the time elapsed have not been sufficient to warrant an opinion at this time.

I have mentioned only the simplest forms of infection which one sees in the ano-rectal region, and they have been considered very briefly. Any one of these diseases, if considered fully, in all of its phases, would be sufficient for a lengthy paper. They are conditions which are met constantly in every day practice, however, and I believe are worthy of consideration. At least the patient who has any one of them thinks so.

I purposely have omitted mention of the pus infections. They, of course, are caused by more virulent organisms, and there is scarcely any limit to their descructive processes. It is from these that the various ano-rectal fistulae result.

Summary and Conclusions

1. Eighty-five to ninety per cent of all ano-rectal diseases are found within the lowest one inch of the gut.

2. Many of the diseases common to this region are the result of concealed or submuco-cutaneous infections of low grade.

3. The lower rectum and anal canal are often defective embryologically, which accounts to some extent for the frequency of diseases in this region.

4. The thin layer of fibrous tissue beneath the covering of the canal prevents these infections from entering the cellular tissue and directs them downward beneath the skin.

5. Among the diseases having such an origin are tight contracted muscles, papillitis, fissure, thrombotic and external hemorrhoids and some cases of pruritus ani. Some of them generally are not considered infectious.

6. Etiologically these diseases are very similar.

7. The results of a low grade, concealed infection depends upon the kind of tissue attacked, whether it be skin, mucous membrane, blood vessels or nerve endings.

8. Treatment of all of the diseases mentioned is practically the same, incision and drainage.

LUESIDE

Read Before the Kanawha County Medical Society

By PAUL SEYDEL, Nitro, W. Va.

In the summer of 1921, Mr. H. M. Spencer, a research physiological chemist, came to see me and told me that he had a problem he would like to discuss. He had been in charge of manufacturing arsphenamine for one of the oldest and best known pharmaceutical concerns. He explained to me that he had worked for several years, in fact, since graduation, to solve Paul Ehrlich's problem of creating an internal disinfectant harmless to the human system and fatal to microorganisms, and believed he had arrived at some very interesting results. I asked him why he came to us with his idea and he replied that we had a reputation of aggressive progressivism unequaled in our field and that he realized that very few concerns would or even could appreciate his idea or would be willing to go to the expense of demonstrating its value. I spoke to him at great length and acquired the conviction that he had an unusual amount of initiative and an excellent idea.

I was at the time devoting my energy in developing benzoic derivatives, convinced as I was that they are far superior therapeutically to salicylates; also, I was fascinated by the possibilities of benzyl therapy, and created a number of new salts and esters of benzyl which eventually led me to the most interesting of all, Sodium-Mono-Benzyl-Succinate which we called "Mobenate" for short.

Mr. Spencer's idea was to disperse metallic mercury in a suitable medium in such a way that the metal would be extremely finely divided so that when dissolved in water the mercury would remain in suspension in exceedingly tiny particles, a substantial proportion of which would be in a practically colloidal state. I naturally grasped the potential value of the idea for intravenous injection of metallic mercury, permitting a definite dosage of the metal so that it would be spread throughout the system, literally flooding the blood stream, a considerable portion of the metal being in an ionized and in consequence inactive form; the circulation would naturally help to further disperse the metal and produce a prolonged therapeutic effect which could not fail to be highly beneficial; at the same time it would be mercury in its least toxic state.

Having done research work all my grown up life and having commercialized my results more or less successfully, I knew that we had before us much more of a problem than Mr. Spencer realized, having to overcome chemical and mechanical obstacles of no mean nature and later on, even after long and

elaborate animal experiments, having to demonstrate to the medical profession the value of the fruit of our arduous labor.

It took nearly a year of Mr. Spencer's exclusive time and nearly half of my time during the same period to reach the point where I was satisfied that I could in all confidence approach some of our friends of the profession with our idea. It seemed very revolutionary to them and at first they were hard to convince. I had no trouble in inducing any number of doctors to try benzyl compounds and derivatives of all kinds orally, provided, I satisfied them that they were nontoxic, but when I told them that we could put metallic mercury in a vein with impunity and that it would circulate in the capillaries like it does in a thermometer, they spoke about embolism, about mercurialism and a number of frightful possibilities. I told them of our hundreds of animal experiments and assured them that the product was singularly safe. Some of them were induced to visit our laboratories and were astounded at the results we obtained with our animals, and finally a well known doctor agreed to try Lueside in his practice.

The first doctor to inject Lueside intravenously started with 2 ccs of a standard solution. As we advocated a minimum of 30 ccs, which our animal experiments indicated to be safe, you can see how timid this doctor was, in spite of having witnessed the animal experiments. He eventually grew bolder and began to notice therapeutic effects long before he reached the dosage we advocated. He finally, after several months, has reached it with excellent results. A number of other doctors since have, after a few experiments, grown bold enough to use the product either in large single doses or in closely repeated small doses, and invariably report remarkable therapeutic effects, and never yet a disagreeable reaction with our standard Lueside. Even now we are very far from having given any human being doses comparable to those we have given animals with impunity, and we know that the efficiency of the drug rapidly increases with increased dosage, either through repetition of moderate doses or through larger doses at more prolonged intervals.

I should very much like to have some doctors carry on more intensive treatment than has been practiced heretofore as I am confident that results will be exceedingly gratifying.

We hope to demonstrate that Lueside will have very wide applications in various zymotic diseases, but for the present we are centering our attack on the worst enemy of mankind, and the results obtained so far are mostly in luetic cases.

Mr. H. M. Spencer who is in charge of our New Jersey Laboratories reports as follows:

"Some years ago when the writer was a research physiological chemist in Cornell University, Ehrlich's ideas concerning the possibilities of chemo-therapy were attracting universal attention. The results obtained stimulated physiological chemists everywhere to seek the "universal disinfectant, harmless to the body tissues and fatal to patho-

genic micro-organisms."

Elaborate investigations led us to the conclusion that an efficient disinfectant must be of a colloidal nature because, micro-organisms themselves are colloids because in their physico-chemical nature, they are essentially like tiny particles of carbon, such as bone black.

The mechanics that control the behavior of micro-organisms and give them the power to migrate into body tissues, are the same forces that inanimate colloids possess.

Capillarity, absorbability, surface phenomena, selective absorption, preferential permeability to ions, Brownian movement, etc., etc., are characteristics possessed by a colloidal particle, be that particle a micro-organism or a bit of soap. For these reasons it is clear that a satisfactory disinfectant for the human body must possess colloidal properties, because the possession of such characteristics can enable it to enter all tissues of the body, even those removed from the blood stream, exactly as micro-organisms do.

Realizing these facts, we sought, as just stated, the "universal disinfectant" of Ehrlich in the colloidal field. Although no claim is made that this long desired substance has been found, because the material under discussion has not yet been tried in a great number of zymotic diseases, nevertheless, the substance that we call "Lueside" possesses, to say the least, hitherto unattained properties that deserve the thought and ingenunity of the leaders of medicine.

The Luesides are powders containing finely dispersed metallic mercury possessing when dissolved in water, the colloidal characteristics of absorbability, Brownian movement, etc. The mercury is dispersed in C. P. Glucose so that it is fit for intravenous injection, being iso-tonic when dissolved in the proper quantity of distilled water, non-anaphylactogenic, and sterile.

Why was mercury chosen as the disinfectant and in what respect do the "Luesides" differ from all other forms of mercury now on the market?

Since bichloride of mercury is, in respect of activity, the disinfectant par excellence, we tried to find some means whereby this disinfecting power of mercury might be retained, but at the same time to eliminate the violently poisonous properties of the soluble salts of mercury to the human organism. The answer to this problem seemed to lie in the use of colloidal mercury.

Colloidal mercury however, when prepared by an electro-chemical method, cannot be sufficiently concentrated to permit giving a therapeutic dose intravenously, without the administration of so much fluid as to play havoc with the erythrocytes through haemolysis, because such electrically prepared colloidal mercury is sensitive to even the smallest trace of salts and such a solution cannot be made iso-tonic and therefore cannot be intravenously injected in any large volume. "Lueside" is so prepared as to be non-sensitive to salts and is vastly more concentrated in respect to mercury.

Colloidal mercury made by a process of reducing salts of mercury with other substances, too complicated to explain here, is so toxic because of the presence of the other

compounds as to be practically as poisonous as bichloride of mercury itself, when injected intravenously. Such a product is an attenuated toxic solution of mercury containing many impurities. "Lueside" is in contrast a concentrated, pure powder, of very low toxicity.

For over seven years we endeavored to concentrate colloidal metals. In 1921 we were able to concentrate colloidal mercury so as to be able to inject intravenously into a rabbit, 300 milligrams of mercury in 10 ccs of iso-tonic saline. The amazing feature of this test was the continued life of the rabbit, which fact clearly demonstrated the low degree of toxicity of "Lueside," a degree hitherto unheard of in any form of mercury for intravenous use. Let us now consider this question of toxicity as well as that of embolism which might suggest themselves to the reader.

In order to produce mercurialism, or in fact, any therapeutic results, mercury must be ionized. The greatest portion of "Lueside" is not in ionized form. Nevertheless, surrounding every particle of any colloidal metal in an aqueous solution, there is an infinitely thin film of ions, which gradually fly off from the metallic particle into the solution.

The finer the metallic particles are, the less is their attractive power toward their film of ions and the more like their soluble salts will the solution of colloidal metals behave.

Furthermore, the greater the ratio of fine particles is to coarse ones in a solution, the greater will be the total surface area of the particles and the amount of ionization around the surface.

In "Lueside" the particles range from almost macroscopic visibility to a fineness beyond the vision of the ultra-microscope, affording a quota of ionized mercury that is immediately available, and quotas available in a day, two days, three days, up to many weeks. In this way, a steady quantity of ionized mercury is furnished to the organism long after an intravenous injection.

The study of Welch and his associates together with the disastrous results obtained from improperly made silver araphenamine has led to a healthy fear of an embolism as the result of an intravenous injection. On the other hand, as colloidal chemists have shown, the embolism is a bete noire that vanishes when its origin is understood. This is hardly the place to discuss the mechanics of embolism or the electrical charges that cause blood corpuscles to agglutinate to such an extent on certain foreign particles in the blood stream, as to eventually block the capillaries in the lungs, brain, mesentery, etc.

Suffice it to say that on account of its surface tension and electrochemical nature, metallic mercury will not cause an embolism any more than will a physiologically isotonic saline solution. To prove this, we have injected many rabbits, hundreds of albino rats, and dogs with great quantities of metallic mercury particles in saline and acacia solution, from 2 to 4 times the size of a red blood corpuscle, and invariably no symptoms of embolism has occurred.

Finally, two rabbits have been intravenously injected with undis-

persed metallic mercury!

This was given in a Luer syringe through a 23 gauge needle, containing physiologically iso-tonic saline and the undispersed mercury. A few ccs of the saline were run into one of the peripheral veins of the rabbit's ear; then the syringe was tilted and the drop of mercury administered. This was distinctly seen as small globules in the vein which quickly passed down through the vein in the base of the ear into the general circulation. 300 milligrams of mercury were given in each case. No sign of embolism occurred in either case. No serious symptom of mercurialism occurred, because the mercury globules were so large (as explained above) that only a trace of the mercury was available to the body in the ionized form at any one time; after a long period the animals were still in perfect health.

Lest this undispersed mercury might remain in the ventricle of the heart, the animals were held head downward in order that the mercury globules if lodged in the heart could pass out in the circulation. In short, the blood pressure is sufficient to overcome the surface tension of metallic mercury globules and to distort them into any shape necessary for them to pass through the capillaries.

Bechold (Die Kolloide in Biologie und Medizin. Chapter on "Disinfektion") demonstrates at great length the fact that a disinfectant must possess colloidal characteristics and shows the colloidal nature of mercury salts, silver compounds, and other heavy metal derivatives that possess disinfectant power.

One of our investigators with collaborators, in a paper not yet published, has demonstrated the colloidal nature of arsphenamine, neo-arsphenamine, and silver arsphenamine. He has investigated these substances and has found them to possess such colloidal characteristics as ultra-microscopic visibility, Brownian movement, absorbability by charcoal, capacity for being salted out, slight diffusibility through an animal membrane, possession of an iso-electric point, etc., etc.

The reason why a substance must be colloidal to possess disinfecting value is because the colloidal disinfectant is absorbed by the bacterial organism and is greatly concentrated on the surface of the organism. For example: a solution of common salt (NaCl) 1:1000 is not a disinfectant because it is not absorbable by a bacterium. Salt must be present in great quantities (10% or more) in a solution before it kills micro-organisms and then it kills more by its hypertonicity to the micro-organisms than anything else.

Bichloride of mercury in 1:1000 solution is on the other hand, a good disinfectant because it is absorbed by the micro-organisms and quickly concentrated on the surface of the organisms so that, although the solution was originally attenuated, it becomes so far as the micro-organisms are concerned, a highly concentrated and poisonous fluid, because the mercury is no longer disseminated throughout the solution, but it gathered together on the surfaces of the micro-organisms and held fast there by electrical absorption tension.

Briefly "Lueside" is a powder proportions, iso-tonic to the blood,

that permits great quantities of mercury available to the body over long periods of time to be given intravenously.

Qualitative tests have shown that the "Lueside" mercury is found after several days, in the liver, lungs, spleen, heart walls, bone marrow, brain, etc. of animals. From the conclusion reached by Drinker and Shaw, colloidal particles (like micro-organisms which are also colloids) are able to pass through the capillary walls and migrate deep into the tissues and body cavities. (cf. Drinker and Shaw—Harvard Medical School Journal of Experimental Medicine, Vol. 33 pp. 77-98 (1921) "Quantitative Distribution of Particulate Material Administered Intravenously into Cats.")

Since "Lueside" has been found to be a safe means for administering great quantities of mercury into animals it remains to establish the therapeutic uses, applications, dosages, etc., of this material in human subjects. "Lueside" seems to make the first and strongest appeal as an anti-syphilitic. This is because "Lueside" permits a definite dosage of mercury in a form that is both clean and non-nauseating, as opposed to the inunctional and oral administration of mercury.

Also "Lueside" being a colloid, permits mercury to permeate the entire system and to go where ever the spirochaetes go.

Finally "Lueside" is safe for intravenous injection. In this way the risk of injecting intravenously the soluble salts of mercury can be obviated, as can also the difficulty of the painful and locally restricted intramuscular injections of the insoluble salts of mercury."

A New York physician reports very interesting results in spite of the fact that patients did not, in our opinions, receive sufficient intensive treatment. This doctor reports a case of a negative Wasserman obtained with "Lueside" which did not react to arsphenamine and other forms of mercury.

He reports: "Metallic mercury highly dispersed can be administered to the human being without harm. Its full value in syphilis has not of course been established as yet, although it converted the Wasserman reaction in patients in whom other methods of treatment had failed. In other applications the reaction was diminished when this drug was used in conjunction with arsphenamine. Another patient had been under treatment for six years, all conventional methods of therapy having been fruitless. The Wasserman reaction was rendered negative by the use of "Lueside" alone, after unsuccessful attempts to convert by means of combined treatment. This represents clean cut evidence favorable to the drug. The patient happened to tolerate arsenicals badly and was thus an ideal test for the dispersed mercury.

Were I not afraid to tax your patience I could quote a number of similar reports, but I would like to read to you abstracts of a report on "Lueside" which includes a short historical notice and the opinions of a leading Illinois doctor concerning "Lueside." This article was written for a national medical journal and reads as follows:

Historical:

Syphilis is a malady of unique modernity among zymotic diseases.

The remains of prehistoric Eurasian men,[1] the mummies of Egypt,[2] the bony relics of those humans who lived in Europe during the Middle Ages, are one and all, free from any certain appearance of the typical lesions and ravages of syphilis.

Prior to the discovery of the New World by Columbus, medical writers have in no case described a disease that could surely have been syphilis. Had syphilis existed among the Greeks or the Romans, it would have occupied the attention of physicians more than any other malady on account of the existing promiscuity of the times.

Also, syphilis has a symptomatology indicating an absence of racial habituation to the disease on the part of infected persons of Eurasian or African ancestry.

The inability of the body to spontaneously recover from syphilis, the absence of immunity to the disease, the fact that tertiary syphilis is "atypical" perhaps more often than it is "typical," the phenomenon of catholicity with which syphilis attacks any and all tissues and organs are clear indications of the recent appearance of syphilis whereby the race has not had time through long exposure to the disease, to evolve by means of the process of natural selection, an immunity, either partial or complete, against syphilis.

It seems to be thoroughly established that syphilis was brought to Europe in 1493 A. D.[3] in the bodies of some infected sailors that accompanied Columbus on his first voyage to the New World, where syphilis had existed as a tropical disease, for how long, no one knows.

Following the Italian campaign of Charles VIII of France in 1494 and 1495, a great outbreak of syphilis occured in Europe.

Treatment of Syphilis

As syphilis made itself violently manifest, consternation reigned among the ignorant and superstitious physicians of the time. Every known drug, potion, elixir and conglomeration was administered in an effort to find a cure. Out of this chaos, the fact gradually emerged that mercury seemed to be helpful when administered in any form.

Primitive hospitals or rather pest houses, called "pavillions" sprang up in which the unfortunate siphilitic was given a more less standard course of treatment.[4] This performance consisted in keeping the patient in a sort of warm oven continuously for a month, sweating him to the limit of human endurance and administering calomel, sulfides of mercury or other mercurials until a prolonged and intense salivation with total loss of teeth and outbreak of gum ulcers were obtained.

The sufferings endured by the patient through the prolonged sweating, continuous diarrhea and stomach disturbances, foul smelling salivation, and painful oral ulcers, beggars even that wealth of descriptive power for which the contemporary Rennaissance writers are noted!

As time went on it was found that sweating and purging were superfluous and ineffective accompaniments to the administration of mercury. Also it was ascertained that a less intense and a more prolonged medication of the body produced better results.

Fracastoro[5] in 1530 wrote on the use of mercury against syphilis as follows:

"As a fact, the action of mercury on the scourge is marvellous, either because its natural affinity for heat and cold renders it proper to absorb the devouring fire of the disease, or because its surprising density permits it to devour and dissolve the humors for a reason that is analagous to that which gives to incandescent iron a caustic action more marked than that of a light flame, or that its mobile and penetrating molecules, apt to infiltrate themselves in the warp tissues, have the power of pursuing and consuming even to the bottom of organs, the impure yeasts of the disease; or finally, that its magic virtues are derived from some occult force whose mystery escapes us.

For several hundred years after mercury was found to have this specific action against syphilis, the application of different forms of mercury was slowly developed.

It is beyond the scope of this paper to outline the origin and development of arsenicals as anti-luetics,[6] nor can be described the final clarifying by Metchnikoff and Roux[7] of the long lasting confusion that existed in medical minds concerning the distinctions between gonorrhea, chancroids and syphilis.

However, until 1913, mercury compounds continued to be the principal and practically the only, dependence against syphilis. Mercury remained and still remains the "right wing" in anti-syphilitic armamentarium.

In 1913, Paul Erhlich developed arsphenamine ("606" or Salvarsan). At first he believed, or at least the German manufacturers with whom he was affiliated, said he believed, that a single dose of salvarsan would completely cure any case of syphilis, no matter how long the patient had been afflicted. Erhlich himself, however, quickly changed his opinion, if he had ever really believed the statement just made, because in speaking of the use of mercury and arsphenamine, he says[8], "On the other hand, however, the greater power of resistance of certain parasites has to be taken into account and this is a purely chemical question, which can only be solved by chemical means. The road leading to its solution which promises the best results is that of combined therapy."

Nevertheless, arsphenamine had advantages over mercury in these respects:

First—It was directly injected into the blood stream and was carried throughout the body.

Second—A large definite dosage was possible.

Third—In primary syphilis at least, it had spirocheticidal power.

These advantages have remained with arsphenamine and neo-arsphenamine and, in spite of the extreme chemical instability of these drugs and the grave anaphylactic symptoms that their injection frequently generate, many millions of doses are annually sold throughout the country.

It has been a source of much wonder and no little discontent among syphilologists that a mercurial analagous to arsphenamine has never appeared. A number of organic mercurials of great chemical complexity for intravenous application have been produced, but

the fate of such compounds has been invariably that the intravenous injection is followed by damage to the kidneys and that a very small dose of mercury only can be given.

In fact, the intravenous dosage of bichloride of mercury and mercury oxycyanide has as many advantages and disadvantages as these complex mercury analogues of arsphenamine just mentioned.

Until some weeks ago, when the new discovery in mercurials was privately brought to my attention, and which is the subject of this paper, the status of the administration of different forms of mercury and the disadvantages of each was in brief this:

1. Mercury by Inunction—A dirty, tedious performance wherein the amount of mercury absorbed is indescribably irregular and uncertain depending upon many variables such as the individual thickness of the skin, its capacity for absorption, the length of time given to rubbing, the conscientiousness and patience of the individual applying the inunction, etc.[9]

2. Mercury by Mouth, as Hydrargum cum Creta, Blue Pill, etc. —Absorption irregular with a tendency to produce unexpected ptyalism and a notorious proclivity for causing loss of appetite, indigestion with more or less severe pain in the abdomen, accompanied by diarrhea.

3. Mercury by the Intramuscular Injection of the Soluble or Insoluble Salts, such as Mercury Salicylate, Mercury Biniodide, Gray Oil, Mercury Bichloride, etc. — Extremely painful and much dreaded by the patient, absorption very irregular and sudden appearance of symptoms of mercurialism often take place; much danger of abscess formation and the state called commonly "cobblestone buttock;" risk, often realized, of fat embolism from the greasy bases employed.

4. Mercury by Fumigation—An ineffective, discredited[10] and almost obsolete method of giving mercury.

5. Intravenous injection of the Soluble Salts of Mercury such as the Bichloride or Oxycyanide—A risky procedure with great danger of kidney damage and almost invariably accompanied by phlebitis, paraphlebitis, sclerosis or thrombosis of the vein, thereby cutting off the method of entry to the body for subsequent injection.

From the state of affairs just outlined, it is clear that the present administration of mercury still has attached to it some vestiges of the strenuosity that the Sixteenth Century "pavillion" mentioned previously, inflicted on patients.

A few weeks ago I received a private communication from the research laboratories of one of the old established drug houses of this country[11] asking my confidential opinion of a new mercurial called "Lueside" that this concern has developed at a great expenditure of money and research effort.

This "Lueside" has so many completely new properties that it constitutes a revolutionary departure in mercurials. In fact the research laboratory of the house who has developed it, was reluctant to claim for it more than a fraction of its unique properties.

Some samples of Lueside were furnished me togethed with a theoretical description of the pharmacology of Lueside written from the ultra-modern standpoint of "physi-

cal-physiological chemistry."

Lueside is a stable powder composed of chemically pure glucose and pure metallic mercury in colloidal droplets. It may also contain sodium iodide if desired by the physicians.

Upon dissolving this powder in sufficient distilled water, a physiologically iso-tonic fluid is formed that is sterile, non-anaphylactogenic and singularly suitable for intravenous injection as it never causes thrombosis or sclerosis of the vein.

When the Lueside fluid is injected intravenously, the mercury droplets that are the finest, pass at once through the capillary walls into the tissues, the coarsest quota of droplets remaining in the blood stream.

The transcendent value of Lueside in the treatment of syphilis, due to the possession of the unique properties just described, requires no further explanation. The potential value of Lueside in yellow fever, malaria, endocarditis, pneumonia, tuberculosis, etc., is great and warrants investigation by physicians.

Lueside is as safe in respect to embolism as it is in respect to toxicity.

From reading these explanations, it is clear that Lueside is a startling and unique advance in chemotherapy.

My own first experiences with Lueside have shown that not only has Lueside overcome the disadvantages possessed by other methods of administering mercury, but is an ideal preparation therapeutically of great value to physicians.

That mercury has a direct spirochaeticidal effect, is well established through the researches of Nichols[13] and Akatsu[14]. Lueside has the properties of literally bathing the spirochetes in mercury. American science has given to physicians a signal attainment of physical chemistry and medicines.

* * *

References

[1]Iwan Block—Der Ursprung der Syphilis.

[2]Buret—Syphilis in Ancient and Prehistoric Times. Phila. 1891. p. 119.

[3]Iwan Bloch—Der Ursprung der Syphilis.

[4]Jeanselme—La Semana Medica. Vol. 27, 1920, p. 18 et. seq.

[5]Fracastoro—Quoted by Thompson—Syphilis. Phila. 1920, p. 217.

[6]Herzfeld—Journ. of A. M. A. 1911, Vol. 56, p. 588, quotes Fallopius having used arsenicals as antileutics in the Sixteenth Century.

[7]Metchnikoff & Roux — Recherches Microbiologiques sur le Syphilis — Syphilis — Paris, 1905, Vol. III, p. 418-425, etc.

[8]Ehrlich — Lancet — 1913, Vol. 185, p. 445.

[9]Powers & Murphy—System of Syphilis—London, 1909, Vol. 2, p. 214. Cole & Littman—Journ. of A. M. A., 1919, Vol. 73, p. 1409.

[10]Cole, Gericke & Sollman—Arch, of Dermat. & Syph. Vol. 5, p. 18, Journ. A. M. A., Vol.

[11]Seydel Chemical Company, 120 Broadway.

[12]The surface tension of a liquid is expressed in the number of dynes per square centimeter that must be applied to distort a spherical drop of the liquid. Mercury has a surface tension of about 420 dynes per square centimeter. A blood pressure of 100 millimeters of mercury exerts a pressure of 13,323.7 dynes

per square centimeter. Hence the blood pressure easily overcomes the surface tension of the mercury with an enormous margin of safety in addition. For the general formula: Pressure in millimeters of mercury —dynes per square centimeter x (7.5010 x 10-4) see Perkins—"Introduction to Thermodynamics"—John Wiley & Sons.

[13]Nichols—Journ. of Exp. Medicine, 1911, Vol. 14, p. 196.

[14]Akatsu—Ibid. 1917, Vol. 25, p. 363.

* * *

I should like to conclude with this paragraph borrowed from a report of a New York physician.

"In view of these facts the preparation should receive further study at the hands of syphilologists possessing a richer material than mine, for the drug is easy to administer and is non-toxic. In its present state of development I consider the substance of potential value in every sense and it represents a new departure in the treatment of syphilis which, when better understood, may open up an entire new territory. The triumph of arsphenamine had its origin in the failure of atoxyl, and it is possible that this form of dispersed metallic mercury may do to former methods of administration what the discovery of arsphenamine did to previous arsenical antiluetics."

A personal communication from Dr. B. P. Thom of New York, one of the foremost syphilologists in the world and author of "Syphilis," the latest and most authoritative textbook on syphilis, says that he has been using Lueside in his practice both hospital and private with very excellent results. He is of the opinion that Lueside is the most powerful of intravenous mercurials, Dr. Thom, I may say, being the leading exponent of the intravenous use of mercury in the treatment of syphilis.

And finally Lueside is American. I trust that America will not be last to recognize its value as it was last to adopt Arsphenamine.

Dr. Law of Nitro is chiefly responsible for my first appearance before you. His results with Lueside having made him an enthusiastic pioneer he insisted that I should present it before your Association, which I was greatly pleased to do.

We are deeply intebted to Dr. John Nevin of the Jersey City Hospital; Dr. A. V. St. George of Bellevue & Allied Hospitals, New York City; Dr. Walter J. Highman, Syphilographer, and Dr. B. P. Thom, author of "Syphilis," of New York City; Dr. A. B. Barker of Illinois; Dr. John Funke, chief of the venereal clinic in the City Hospital at Atlanta; Dr. R. A. Ireland, president of the Kanawha Medical Association and Health Commissioner of Charleston, West Virginia; Dr. H. D. Law of Nitro, and a number of others for their encouragement and valuable help in attaining the results that several years of strenuous efforts have brought about with Lueside, and feel that their names are a good omen for the inevitable success of this mercurial drug.

THE TREATMENT OF ACUTE MELANCHOLIA

By EGBERT W. FELL, M. D.
Cincinnati, Ohio

In the following discussion the term melancholia is used to desig-

nate any pathological depression whether symptomatic, manic-depressive or involutional in character. While a differentiation between these types is of importance prognostically the prime indications as to treatment are the same in the acute state of all.

The institution of treatment in a case of melancholia (or for any other mental disease) presupposes a thorough physical examination having been made. We are all in the habit, I hope, of making "diagnostic surveys" even if it has never occurred to us to use such a euphonious name for a complete physical examination. Blood, urine, X-ray, gynecological and other examination should be done not as routine measures but as intelligent aids in our effort to thoroughly understand our patient. Any abnormal condition found should, provided it is such as to react to the physical disadvantage of the patient, be alleviated. I am not of those who think the question is solved by focal infection in the teeth, tonsils, intestines or elsewhere. Dental surgeons who understand pathology tell us that it is easy to overestimate the importance of a shadow at the apex of a tooth root on an X-ray film. Grossly infected teeth should be removed and pyorrhea should be treated, but serviceable teeth should not be removed on suspicion. More evidence is necessary before the teeth can be convicted of any important part in the development of mental diseases. The same may be said of tonsils. To subject an already run down melancholic to the strain of a tonsillectomy on the supposition that we may be removing a focus of infection or for the reason that it is better to be doing something than nothing is to say the least unjustified. It is never possible to say that a focus of infection does not exist in some part of the body, nor would anyone say that the poison of the streptococcus is not capable of causing psychotic symptoms; but a relationship of cause and effect should not be argued against commonly accepted belief without definitely clear cut evidence. Certain specialists who are not adverse to being advertised in the newspapers and magazines have succeeded in popularizing the focal infection idea to such an extent that it is at times difficult to maintain an attitude of conservatism in the face of the demand that "something" be done without being considered old fashioned and behind the times. A few years ago the same sort of enthusiasts were removing ovaries and other portions of female genitalia without result except, perhaps, eugenic ones. This tendency to attribute every mental disorder to some bodily condition was recognized and warned against by Griesinger who said that "The admission of such disorder without sufficient foundation, but only suggested by theoretical supposition to strengthen a particular hypothesis, must be carefully guarded against." On the whole it is better to stick to measures of established value or at most to those that can do no harm. In the long run it is a better and safer policy for the mentally as well as for the physically sick.

The first and most important indication in the care of a patient who is pathologically depressed is to prevent self-destruction. Rela-

tives are very loath to think that a patient will kill himself. Even if he talks about wanting to die or perhaps makes an ineffectual attempt, they are inclined to look on it as a bluff or only a manifestation of nervousness and are seldom convinced of the seriousness of the situation until the injury is done. Every patient who is pathologically depressed is potentially a suicide and this applies no matter how mild the patient's conduct. Seldom a day passes that the papers in any large city do not record a tragedy due to the neglect of this fundamental indication in the treatment of depressions.

The most effective means of preventing suicide lies in constant watching. If the patient is to be treated at home he should be under constant observation by an intelligent, tactful person, preferably not a relative. The usual means of self-injury should be removed from the parts of the home to which the patient has access. These include, of course, knives, razors, scissors, matches, medicines, lysol, ammonia, cleaning and disinfecting solutions as well as straps, ropes and easily torn clothes. It is impossible to remove every possible means of self-injury and it is not desirable to entirely strip the patient's room of its furnishings in order to obtain a trifle more security. Such accidents are most likely to happen at night for the reason that the patient sleeps poorly and his thoughts are then the most gloomy, also the opportunities are then greater. Bromides, opium and other sedatives at times help to curb the suicidal tendencies by blunting the feelings and thereby taking the edge off the sorrow, but in the long run the chief dependence is in the watching of an experienced person.

It goes without saying that the proper conditions for the care of any mental case are most readily and satisfactorily obtainable in a hospital equipped for the purpose. Few families are financially able to turn a part of their home into a mental hospital and supply the necessary personnel nor is it in the usual case desirable to upset the family routine to that extent. It is almost invariably found that the proximity of solicitous relatives has a distinctly bad effect even if they do not (as they often do) try to "cheer the patient up" or get his mind occupied. So long as he is at home he will expect to be a part of the family. For these reasons especially is early removal to a mental hospital advisable.

It is usually found that an acutely depressed patient has lost weight and is more or less exhausted as a result of loss of sleep and insufficient nourishment. Added to this is more or less of a toxic element caused by an insufficient intake of liquids and poor elimination. Having accomplished the removal to a mental hospital or to other suitably equipped place the indications are for rest, feeding and elimination. The patient should be put to bed for a longer or shorter period depending on the physical condition. Staying in bed is often opposed, but can usually be accomplished by persuasion and urging except with the very agitated; with them it becomes a matter of judgment and trial whether it is to force the patient to stay in bed or whether struggling against will consume

more energy than will be gained.

Diversion and occupation are entirely out of place in the care of the acutely sick. Relatives and friends will have a great desire to divert the patient's mind. Usually before he comes to us he has been "amused" in various ways, taken about in an automobile, to picture shows or other entertainments, perhaps on a journey. All of these things in the acutely depressed can only have the effect of increasing the mental pain and using up energy which should be employed in getting well. Harmful in a less degree only are the diversions afforded in the modern mental hospital. Occupation therapy has no place in the treatment of the acutely depressed, although it is of great help in the period of convalescence. Turning again to Griesinger we find that the value of rest and quiet was recognized by him as early as 1850. The following from his "Mental Pathology and Therapeutics," seems to me to be a very correct presentation of the question. "In every case, if acute and recent, the primary indication is absolute rest of the brain, the suppression of all accustomed irritation, and still more of all stronger and positively injurious influences. The patient instinctively seeks this rest; he withdraws himself from every cheerful expression, from all bustle, fatiguing conversation, and everything that would be painful to him; he seeks solitude. So when an individual falls into melancholia, all attempts to resist it by external distraction are useless and injurious. From loud and noisy amusements especially, the patient can receive now only painful impressions; it is still more injurious to ply him with impressive exhortations, queries, and admonitions. The mental activity to which he was accustomed is now a source of irritation; and only retreat from the accustomed sphere of life, solitude, and perfect rest of the brain, can act beneficially upon those on whose minds everything produces too great agitation. This object may be attained, according to the requirements of the case and its outward circumstances, through removal to retired and peaceful, and at the same time agreeable and pleasant associations; or through the strictest seclusion and sometimes even through prevention of all impressions of sound and light . . ."

If it is found that bed treatment is resisted to such an extent that insistence on it will do more harm than good a compromise should be reached and short periods of rest alternated with short periods of activity. Prohibition of visiting while not specially mentioned above was implied and should be continued more or less strictly as experience in the individual case shows to be desirable, until convalescence is well established.

The feeding of an acutely melancholic patient is a matter requiring close attention. A good general diet in amounts that the patient can digest should be given in the usual three meals. Milk and eggs are customary between meals. Where the giving of food is a difficult matter as well as in much run down persons our efforts should be confined to liquids, milk, eggs, broths and especially fruit juices and water in small amounts frequently. When a liquid diet is given it is well to stip-

ulate that a glass of liquid of some kind be given, say, every hour, for unless a definite rule is established, especially if the patient resists feeding, the chances are that he will be getting much less liquid than we suppose. There are a number of reasons for a melancholic not taking food. He may think the food is poison and refuse it on that score. He may have the idea that his stomach or intestines are gone, closed up, decayed or what not. He may think that he is not worthy to eat or that in so doing he is depriving someone else of food; again, he may be trying to suicide by starving himself. In a minority of cases a gastro-intestinal disorder causes a failure of desire for food.

Rather than to struggle with forced feeding with poor results tube feeding should be resorted to early. A tube 20, 22, or 24 French, or as large as can be passed without excessive discomfort, either a catheter and funnel or a small stomach tube, is lubricated in the feeding solution and passed through the side of the nose that is most open. After the tube has passed well down the gullet the feeding, previously warmed, is introduced as quickly as possible. The first few feedings should be quite small so that the patient will not get into the habit of regurgitating. For the same reason the tube should be quickly withdrawn when the feeding is completed. If nausea is pronounced the stomach should be first washed out with water and then a small amount of food introduced. An average feeding consists of a pint and a half of milk in which two eggs are beaten up. This amount should be given two or three times a day. The tendency in tube feeding is to depend too entirely on milk and eggs. Gruels, broths, sugar and fruit juices should be used in sufficient amounts to give a balanced ration. The giving of a sufficient amount of water cannot be too strongly insisted on. If the patient takes no water an additional amount should be given by tube.

Constipation is quite constant and often very troublesome. It should be treated with castor oil (occasionally), cascara or other cathartics given with feedings. Salines should be given but seldom. Enemata, of soap and water while not desirable for routine use, are frequently necessary. The word of the patient should not be taken as to the number or amount of bowel movements.

The object of the medicinal treatment of melancholia is the securing of a sufficient amount of sleep. It is usual to order a hot drink at bed time in cases of insomnia, but the depressed patient will not take it or if he does it is without effect except in very mild cases. Baths are more often of value. A tepid tub bath of one half hour, unless too much resisted, has in my experience been the most useful. Hypnotics must often be resorted to. Of these bromides, veronal and chloral are the most useful. The opium or morphine treatment which formerly had considerable of a vogue, is at times useful in cases with much agitation, but cannot be recommended as a routine. In individual cases indications may exist for medication directed toward the alleviation of special symptoms or conditions, but the routine prescribing of more or less potent remedies as a result of

some theory as to the causation of melancholia, is to be condemned. The use of corpus luteum, thyroid, etc., should be governed in this way.

Physical treatment includes, of course, the establishment of a proper environment, the exclusion of friends and relatives as well as a sympathetic but firm attitude on the part of the doctor and attendants. The patient should be given to understand that what is being done is for his good. His pessimistic and delusional ideas should not be agreed to, neither should they be argued about. Anything in the way of a psychoanalytical search for causative conflicts should be postponed until the interval. Reassurance as to the prospects of recovery can do no harm and often seems to, at least temporarily, lessen the distress of the melancholic.

The management of the period of convalescence requires rare judgment. The recovering melancholic should be encouraged to gradually resume his usual activities. As a rule his departure from the hospital should not be hastened, first because relapses are very possible, and second because suicidal ideas may persist till long after the apparent signs of depression are gone. On the other hand it is very possible to over-prolong the stay in a hospital. A return home is at times followed by a prompt and permanent recovery in a case that has begun to look unpromising. The decision as to the proper time for leaving can only be made after a careful consideration of the individual case combined with a knowledge of the place and surroundings to which the patient is to taken.

AMERICAN SYNTHETICS

The Fordney-McCumber Tariff Bill, recently passed by Congress, unfortunately does not provide sufficent protection for American-made medicinal chemicals, nor does it compensate for the extensive research work which has been done by American chemists.

The rates on medicinal chemicals were passed over the protest of the medical profession. It is now possible for the physicians to follow up their protest by using only American-made synthetics, and referring to them, at all times, by their American names, as suggested by the Council on Pharmacy and Chemistry of the American Medical Association.

Among the important American-made medicinals which should receive the support of all American doctors, are Arsphenamine, Barbital, Cinchophen and Procaine. Literature on these products may be obtained by writing to The Abbott Laboratories, Chicago.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M.D., Editor.
C. R. ENSLOW, M.D.
J. E. RADER, M. D.
W. E. VEST, Assistant Editors.

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All original articles for this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisement must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

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Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

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The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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PHYSICIANS, EDUCATE YOURSELVES

In the November issue of the WORLD'S WORK, there appears on page twenty-three, an editorial under the above caption.

This editorial deals with obstetrics, and is a very timely one in many respects. In this article the statement is made that in 1890 the death rate from causes incidental to childbirth as stated by Dr. Grace L. Meigs, in "Maternal Mortality," was 15.3 per 100,000; in 1915 it was 15.2, while for 1916 it was 16.3 per 100,000; and proceeds to quote a writer in the Journal of the American Medical Association, "we are not justified in believing that the average woman is benefitted by the advances that have been made in scientific obstetrics during the last half century." This article then goes on to state that the trouble is that practitioners do not school themselves sufficiently in the technique of the trade. The fact of the matter is that this is rather a severe arraignment of our profession, and this particular specialty.

For a number of years I have been giving special attention to the servcie rendered in this particular line of medcial work, and have finally reached some more or less definite conclusions in regard to it. The truth of the matter is that this most important specialty in all medical practice is only appealing to the smallest number of the profession, and has been more or less neglected by the men in general practice. Maternity work has been carried on in the past and, we are sorry to say, is today still carried on in a somewhat indifferent manner. Yet there is nothing in medicine which approaches this field of our work in importance.

There are many things, however, to be said explaining this state of affairs. To begin with, it is the most difficult field in medicine, the most tedious, and consumes the most time. The laity do not appreciate the seriousness of obstetric work, nor the value of the very best that can be provided. This is probably due to the fact that the medical profession has in the past failed to educate them as to the importance of the highest class of service. Since the time when Mother Eve began to bear children women have been constantly following in her footsteps, and the people think that just as soon as "the baby is out," everything is over, not realizing that careless work in this respect is followed by all manner of untold misery and invalidism during the subsequent years of the woman's life.

We have not educated the people to appreciate the scientific attention to obstetrics, and as a consequence they regard it still to a certain extent as "granny" work, and refuse to pay fees in any way commensurate with service rendered. It is understood of course that this does not apply to large cities where men of the highest scientific attainments have taken up this specialty, and where well-to-do people are not only able, but willing to pay good fees for the type of service rendered. It does mean, however, that moderate incomes, that is those having an income of $150 to $300, or $400, or even $500 per month do not appreciate the value of scientific obstetrics as they should. The man who would be perfectly willing to pay $100 or $200, or even more to a surgeon for operating on his wife for a simple appendectomy will feel that he is robbed if you charge him a similar fee for a simple uncomplicated natural delivery, yet of the two things the confinement of his wife is far more difficult, and the results of carelessness and bad technic are more far reaching upon her future welfare and the happiness of the family.

There is nothing in the fealm of surgery demanding a higher grade of technical skill and judgment than a high forceps delivery, the performance of a version or a Caesarian Section, and yet we are expected to perform these very difficult, skillful procedures excepting the Caesarian operation in the home, probably on a bed close to the floor, without the trained assistance of a well equipped hospital, lacking which our brothers of the surgical persuasion would absolutely refuse to operate. The great wonder is that in 1916 the maternal mortality from causes incident to child birth was 16.3 per 100,000, and not a

rate of 163 per 100,000. Had surgeons performed an equal number of abdominal operations per 100,000 population under the same conditions which men doing obstetrics have to perform their duties, we venture to say that in all probability it would have been 16.3 per 10,000.

I feel very strongly on this matter, and while admitting that the practice of obstetrics has not been developed to the standard of that possible in surgery, or other branches of our profession, yet we do take issue at once that the profession is to blame for the results accomplished. It is the laity, the people not appreciating and not being willing to pay for a service demanding the very highest and best type of specialist, that requires the very highest grade of technical skill. These particular thoughts are commended to the editorial writer of the WORLD'S WORK for serious consideration. It seems to me that there should be a following editorial comment explaining to some extent why results in obstetrics are what they are, and not leaving the impression with the laity that physicians do not try, and are not educated to give the service which a pregnant woman is entitled to during her confinement.

She is entitled to the very best, and even the very best is not good enough; the husbands especially should be educated to the point of appreciating it, and not go from one physician to another seeking how cheaply they can get their wives confined.

TOO MANY DIPHTHERIA PATIENTS DIE

Why should there be any diphtheria mortality at all? Antitoxin is to this disease what water is to fire. The answer to the question is, therefore, that the antitoxin is not given soon enough or in sufficient quantity. Fire does not spread more surely or more rapidly among combustible materials than diphtheria in the tissues of the child attacked. The one supreme necessity is to head it off—put it out. A dose of 5000 units of antitoxin may or may not suffice. This dose should be the minimum; and it is far better to give 10,000 or 20,000 units in one dose than in two.

Nature is helpless in many of these cases; her defensive forces are simply overwhelmed by the poison of the disease. Give the patient a full dose, a liberal dose, of antitoxin, and as many as may be required; arrest the poisoning process; and then nature, relieved, rallies her phagocytic forces and destroys the invading bacilli.

The mortality of diphtheria in this country is 10 per cent. One patient out of ten dies. Save the tenth child!

ANNOUNCEMENTS AND COMMUNCATIONS

THE EDITOR,
West Virginia Medical Journal,
Huntington, W. Va.

My dear Sir:

This Bureau is charged with the responsibility of furnishing medical care and treatment to veterans of the World War. We find ourselves handicapped by a very sreious shortage of physicians and nurses trained in Neuro-Psychiatric work. The need has become so urgent that the Director has decided to make an endeavor to give special instruc-

tion to selected doctors and nurses for the purpose of supplying our needs in hospitals and dispensaries.

I am enclosing an announcement on the subject which is self-explanatory.

Dr. Frank F. Hutchins, Professor of Mental and Nervous Diseases, University of Indiana, and the Director of Clinical Neuro-Psychiatry, U. S. Veterans' Bureau, is in direct charge of these courses and any reply that you care to send should be forwarded to this office for his attention.

It has occurred to me that you might assist the Bureau to bring this matter to the notice of your readers, by publishing extracts or portions of the announcement as you deem necessary and convenient.

Your favorable action will be appreciated. If you make any announcement in your publication, will you kindly forward a copy for our information?

The Bureau will appreciate your cooperation in an endeavor to provide the best care for the men and women who served our Country in its hour of need.

Very sincerely yours,
ROBT. U. PATTERSON,
Assistant Director.

October 31, 1922.

The United States Veterans' Bureau offers a special course in Neuro-Psychiatry to a certain number of qualified physicians on condition that upon completion of such course they will continue in the service of the Bureau for a period of at least two years thereafter.

The policy of this Bureau is to provide expert medical attention for the disabled veterans so that everything possible may be done to restore them to health and proper status in civilian life. To maintain this policy in the opening up of new hospitals, and being unable to secure the required number of specialists in nervous and mental disease, it becomes necessary to instruct a staff of our own for this line of work. To this end a systematic and comprehensive course in Neuro-Psychiatry has been carefully outlined consisting of 176 lectures and demonstrations and some 440 hours of clinical and laboratory work. Each course will be for a period of about four months. There will probably not be more than two courses annually. Courses will be offered as long as it appears necessary in order to meet Bureau requirements. Instruction will include the necessary reviews of the fundamentals, followed by clinics and lectures on the various forms of nervous and mental diseases, including endocrinology. Special attention will be devoted to diagnostic methods, the general care of patients, and methods of treatment. Students will have actual experience in practical work. General problems of hospital administration, medico-legal questions, rehabilitation methods, psycho-metric examinations and other related matters will be adequately dealt with.

The main part of this course will be given at St. Elizabeth's Hospital, a government institution for the insane at Washington, D. C., which offers unusual and unexcelled facilities for such work. There are nearly 4,000 patients and case histories of more than 20,000 discharged patients immediately available for study. Here are all classes of nervous and psychotic diseases,

while other public hospitals in Washington will provide abundant clinics in so-called functional diseases, borderline cases, and the milder types.

The teaching staff that has been selected to give this course in Neuro-Psychiatry is significant. Besides the members of the staff at St. Elizabeth's there will be lecturers from the Medical Departments of the Army, the Navy, the Public Health Service, the United States Veterans' Bureau and the U. S. Department of Agriculture. A number of America's most eminent neurologists and psychiatrists will come to deliver lectures on special topics.

As the number of students that can be accommodated is limited, early application for each course is desirable.

Physicians who desire to enter the service of the U. S. Veterans' Bureau and to take this course in Neuro-Psychiatry are requested to make application at once to the Director of the U. S. Veterans' Bureau, attention Medical Division, including thereon the information, and where necessary the documents mentioned in the following list of qualifications:

1—Applicant must be a citizen of the United States.

2—Must be between 23 and 45 years of age.

3—Must be a graduate of a Class "A" Medical School with at least six months' service as interne in a general hospital or its equivalent.

4—Must present a certificate from the Dean of his Medical School as to his professional ability, his personal suitability, and his moral character.

5—Must be able to show by recent medical examination certificate that he is in good health and physically fit.

6—Must sign a statement that he will give at least two years' professional service to disabled veterans after completion of the course.

7—Must submit with his application a recent photograph of himself.

Ex-service men who have been honorably discharged will be given preference.

Other things being equal, members for the course will be selected in the order of their application.

Students who are authorized to take the course who are not already in the employ of the Veterans' Bureau will receive a salary of $166.00 per month, with no allowances, while taking the course.

On satisfactory completion of the course members will be recommended for the grade of Passed Assistant Surgeon in the Reserve Corps of the U. S. Public Health Service, or they will become eligible for employment as Class "B" physocians under the U. S. Civil Service Commission and assignment to duty with the U. S. Veterans' Bureau. These salaries range from $3,000 per year, upward.

The course will start on January 4, 1923.

DR. J. R. BLOSS,
Editor W. Va. Medical Journal,
Huntington, W. Va.

Dear Doctor:

During October, the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies:

Lederle Antotoxin Laboratories:

Diphtheria Toxin-Antitoxin (0.1L).

H. A. Metz Laboratories, Inc.: Alumnol.

H. K. Mulford Company: Hay Fever Timothy Pollen Extract—Mulford.

Parke, Davis and Company: Normal Horse Serum—P. D. & Co.; Rabies Vaccine (Cumming)—P. D. & Co.

E. R. Squibb and Sons: Acne Vaccine, Colon Vaccine—Squibb, Gonococcus Vaccine, Meningococcus Vaccine, Normal Horse Serum, Pertussis Vaccine, Curative, Pertussis Vaccine, Immunizing, Purified Diphtheria Antitoxin (Anti-diphtheric Globulin), Pneumococcus Vaccine, Staphylococcus Vaccine, Staohylo-Acne Vaccine, Streptococcus Vaccine, Tetanus Antitoxin Purified, Typhoid Vaccine, Typhoid Vaccine Combined Immunizing.

Truly yours,

W. A. PUCKNER, Secretary,
Coun. on Pharmacy and Chemistry

COUNTY SOCIETY REPORTS

The Barbour-Randolph-Tucker County Medical Society met in the Y. M. C. A. Building in Elkins, October 26th, 1922, the following members present: Drs. Pierce, Talbott, Wilson, Hall, A. S. Bosworth, Hamilton, Butt, McIntosh and Irons.

Dr. Pierce presided. Minutes of previous meeting were read and approved. The Secretary read greetings from Drs. J. W. Bosworth, M. M. Hoff and C. S. Hoffman; also a circular letter from R. Wales of Chicago, Manager of Scientific Motion Pictures relative to the Wertheim Obstetrical Film, for society use; and Dr. Pierce read a letter from Dr. W. W. Golden, suggested that the members of the Society cooperate in disseminating information as to the prevalence, nature and dangers from cancer, and that all make especial effort during "Cancer Week," November 12th. Secretary called attention of Society to American Medical Association Bulletin, its value, its cost, etc.

The following officers were elected for 1923:

President, Dr. E. M. Hamilton.

First Vice President, Dr. C. H. Hall.

Second Vice President, Dr. J. L. Miller.

Secretary-Treasurer, Dr. J. C. Irons.

Censor for Barbour County, Dr. C. B. Williams.

Dr. F. K. Lyons of Parsons was elected member of the Society.

Dr. A. P. Butt read a very suggestive and practical paper based on his observation in practice for a number of years on Preventable Mortality, especially in abdominal inflammations. Dr. Butt asserts that the secret of success in abdominal operations is early operation He believes it is safer to open the abdomen, even though you may not be certain as to diagnosis. He also says that in giving medical advice, it is safer and better to study your case in quietude, and form your opinion while uninfluenced by sympathetic friends and alleged circumstances, and then boldly give your opinion. He stated that statistics of appendiceal operations show that about 80% recover; twenty percent die. If early diagnosis and operation were maintained, the death rate could be almost obliterated. Dr. Butt gave this as his most reliable diagnostic test,—press over the supposed inflamed point, and unsus-

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pected by the patient give a strong percussion tap, and if the patient jumps, you had best operate quickly.

Dr. R. E. McIntosh read a paper on Vitreous Opacitics.

These papers were discussed by different members. The Society then adjourned to meet in January in Elkins.

J. C. IRONS, Secretary

October 26, 1922.

The regular meeting of the Cabell County Medical Society was called to order in the assembly hall of the Frederick Hotel at 8:30 p. m. Dr. Beckner, in a paper presented on "Focal Infection in Relation to Diseases of the Eye," emphasizes the importance of searching for the cause of eye diseases in some hidden focus, rather than directing all the attention to the eye itself. The paper was discussed by Dr. T. W. Moore, Dr. Marple and Dr. Sweezey. Dr. Beckner then closed the paper.

A paper by Dr. I. C. Hicks on "Local Anesthesia and Trauma in Surgery" was presented. He reports an operation for strangulated hernia in a patient 70 years old, using a local anesthetic of aposthesine. The paper was discussed by Drs. A. K. Kessler, Hatfield, C. F. Hicks, T. W. Moore and Dr. Fitch, Dr. I. C. Hicks closing the discussion.

Dr. Gerlach made some remarks regarding the intended prosecution of chiropractors. Dr. Bobbitt made a motion that a committee of two be appointed to assist Dr. Gerlach in securing legal aid to carry on the prosecution. And that the society stand firmly behind the movement and employ Judge Holt and Col. Vinson as counsel. Dr. Gerlach amended that Dr. Hatfield, Dr. Bloss and Dr. T. W. Moore be included in the committee. Amended motion passed.

Dr. Hatfield moved that an initial assessment of $10.00 be levied to carry on the prosecution of chiropractors. Seconded by Dr. Hunter. Motion carried.

Adjourned.

Members present: Drs. Beckner, A. K. Kessler, T. W. Moore, Rudemann, Miller, Malcolm, Sweezey, C. F. Hicks, Marple, I. W. Taylor, Hunter, Stewart, Hereford, Hubbard, Bobbitt, Hodges, Bloss, I. C. Hicks, Fitch, McKenzie, Vest, Yost, Hatfield, Gerlach, Cronin and Brammer.

W. C. SWANN, Secretary.

The Mercer County Medical Society met at Oak Grove Inn on the Bluefield-Princeton road, Sept. 28, 1922.

A delightful good old fashioned country supper was served by Mrs. Strum to quite a number of the doctors, their wives and friends at 6:30 p. m.

Immediately after supper the doctors gathered in the sitting room about the old fashioned fire place with Dr. H. C. Hays presiding.

Dr. B. P. Ratcliff reported a very interesting case of typhoid fever, the patient had had five hemorrhages from the bowels, then one or two from the nose. Dr. Hoge briefly discussed this case.

Dr. W. W. Rixie made an extensive verbal report of a case of partial paralysis and after considerable discussion no definite diagnosis was made. Dr. Rixie agreed to give us a further report of this case at

the next meeting.

After a full explanation by Dr. J. R. Vermillion why Dr. M. V. Ziegler of the state health department was with us Dr. Ziegler was asked by the President to state his mission to the society. Dr. Ziegler was with us representing Dr. W. T. Renshaw and explained quite fully the Shepard-Towner bill and asked the co-operation of this society in supporting its workings in Mercer County.

And after a pleasant talk from Miss Westhoff, who is now in Mercer County perfecting an organization called the Mercer County Maternity and Hygiene Association, telling us the object of this association and what has been done and what is being done now in Mercer County, President Hays asked Dr. Thornton to take the chair and he made the following motion: That the action of the Mercer County Medical Society, at Glenwood Park, June 22nd, 1922, in regard to the Shepard-Towner bill be amended to the extent that this society will co-operate with the Mercer County Maternity and Hygiene Association one year and the President of this society be directed to appoint a member of the medical society on the Governing Board of the Nursing Committee. This was seconded by Dr. C. A. Easley and carried by a vote of the society. Dr. Hays again took the chair. The Secretary was requested to find out the cost of the rental of the Wertheim Obstetrical Film and report at the next meeting. Dr. Lilley of Athens was present and granted permission to call to our attention the voting at the November election of a bond issue for the establishing of a Dental Clinic in Mercer County, which met the approval of this society.

Adjourned at 10:00 P. M.

H. G. STEELE, Sec.

STATE AND GENERAL NEWS

OHIO COUNTY

DR. HARRY M. HALL, Reporter

The Society finds the Y. M. C. A. Auditorium quite comfortable. One of the commonest diseases affecting a Medical Society—so to speak—is a poor meeting place. Nothing makes it dwindle and lose its vitality like a barren, cold and uncomfortable room to gather together in. Doctors of course are simply brimming over with scientific zeal, but it does not seem to last in the presence of a little, cramped, cold room. The Ohio County Society has staid put after some rather trying experiences. Doctors do not have an enviable record as to spitting on the floor, but the Society here, among other improvements has a body of men who have become quite adebt at hitting the cuspidor with resultant hygenic improvement and the good will of janitors.

Visitors to Boston at the recent Surgical Congress were Doctors Fulton, Linz, Drinkard, Noome, Fawcett, Kelly and Osterling. All were old members or elected this year. They report an enjoyable time with great profit to themselves. Dr. Linz, as will be noted, was elected a member. It is always fortunate for the Doctor he does not have to wear any insigna which would indicate his various elevations to office. If he did no military commander we can think of would stand any show at all, and for colors the solar spectrum, the peacock and Joseph's far

famed coat would not for a minute dare to offer any competition. Seriously, however, we believe the Doctor one of the most astute and clever politicians in this or any other profession, and we believe the Diplomatic Service of the League of Nations would do well to have him untangle some of their worst problems.

The programmes have run as follows: On Friday, October 20th, we had local talent. Dr. Roberts, associated with Dr. Fulton's embryonic unit that he is gathering together, gave a good sensible paper on Urology, full of careful thought and directly to the point. On the same evening Dr. Howard Phillips on Skin Diseases. The Doctor is a recent addition, and we are quite proud of him. Exhibition of Clinical Cases (a somewhat forgotten art), featured the evening.

On October the 27th, Dr. Emil Novak of Baltimore, upon "Etiology and Mechanism of Uterine Bleeding," with Lantern Slides. Discussed by Cracraft, E. M. Phillips and Gaydosh. The Doctor is one of the best talkers among his colleagues. This was a return engagement for him. We all think we know all there is to know about "Uterine Bleeding." Dr. Novak's forceful discussion and unusually good clear slides prompts you to feel there might be something you overlooked. Recommended to any Society that wants a clean, clear cut, quickly given lecture.

On November 3rd, Dr. Lewis Wine Bremerman of Chicago, Illinois, "Diseases of the Female Bladder." Discussion by Harris. Whereever the second Christian name comes from we don't know, but it certainly is in keeping with its owner when it comes to zest, bouquet, and taste. An easy talker, knowing well his subject he made of his discussion following his original paper a second evening as it were. He was surrounded after his lecture by an enthusiastic group of men, who engaged him in conversation. The subject of glandular therapy come up and the crowd was distinctly skeptical. He told of a patient of his, a boy of eighteen (I believe) who had no testicles, hair grew like a female, rounded hips, falsetto voice, did not shave, and whose attributes were decidedly feminine. Experimentally and strictly as a doubter he obtained two fresh testicles, implanted them in scrotum and in six weeks boy shaved, with a general reverse of above. Boy went into war and he has lost track of him although he has made vain efforts to reach him. The crowd broke up, and while the vote is still the same it made quite an impression.

November 10th, "Cancer Evening," under the direction of Dr. Frank Hupp, open to the public, about 200 were present. Drs. Schwin, McLain, Hoge, McCoy, Clovis, Aiwman and Hall gave the different phases. Dr. Hupp opened the meeting with an abbreviated discussion, and was followed by the others on the Breast, Statistics, Throat, Bladder, X-Ray, Stomach and Uterus. Dr. Hupp is to be congratulated on his direction of this campaign. It is interesting to note, too, that one of our papers here, The Register, saw fit to speak of "Cancerophobia" being possible with the present campaign.

It is hoped that at the next meet-

ing of the State Society, arrangements can be made whereby the good talkers from the West Virginia cities can be loaned to other cities and exchanges made, and we can hear more good men from our own State and County meetings.

Mrs. Dr. F. LeM. Hupp is in New York for several weeks.

Dr. Robert Reed has returned from a month's vacation at Atlantic City and elsewhere.

Dr. W. S. Fulton has bought one of the most prominent corners in the city. The Doctor was not even in town when the papers carried the news. Rumor has it that the Doctor, always restless and ambitious to put West Virginia on the Medical Map, is again doing his part by way of constructing a big clinical building after the fashion of the Cleveland Clinic and the Mayo Clinic. Most of the things the Doctor has attempted have succeeded beyond his hopes. We hope this one does. Not all the profession believe in central clinics, but there is only one way to find out and that is for the pioneers to build them.

RALEIGH COUNTY

DR. CHAS. S. SMITH, Reporter

Dr. O. L. Hamilton of Vanwood who has been absent several weeks on a vacation has returned.

Dr. B. W. Eakin of Tams has spent some time recently in Baltimore. Dr. George Lounsbery relieved Dr. Eakin during his absence.

Dr. J. E. Coleman of Beckley has returned from Boston where he received his F. A. C. S. degree.

Dr. R. L. Penn, Miss Anna Augustine and Mrs. Hessian of the Oak Hill Hospital staff have returned from a visit to Crile's clinic in Cleveland.

Dr. John E. Hughart of Landisburg was a visitor to Beckley recently.

Dr. Robert Wriston and Dr. Fred Stansbury of Beckley were visitors in Charleston recently where they were initiated into the mysteries of Shrinedom. They report a "hot" time.

At the meeting of the Chesapeake & Ohio Railway Surgeons Association held at White Sulphur Springs on the 17th and 18th of November, the following officers were elected for the coming year:

President, Dr. S. W. Hobson, Newport News, Virginia.

First Vice-President, Dr. C. C. Coleman, Richmond, Virginia.

Second Vice-President, Dr. R. K. Buford, Charleston, West Va.

Third Vice-President, Dr. C. E. Wamsly, Newport, Kentucky.

The West Virginia physicians in attendance were: Dr. H. L. Goodman, McKendree, W. Va.; Dr. A. W. Crews, Thurmond, W. Va.; Dr Ralph Hogshead, Eagle, W. Va.; Dr. P. A. Ford, Talcott, W. Va.; Dr. L. M. Campbell, Eskdale, W. Va.; Dr. C. N. Lemon, Claremont, W. Va.; Dr. G. W. Johnson, McAlpin, W. Va.; Dr. N. L. Beard, Alderson, W. Va.; Dr. W. T. McClellan, Ethel, W. Va.; Dr. B. B. Wheeler, Beckley, W. Va.; Dr. H. C. Skaggs, Montgomery, W. Va.; Dr. L. O. Fox, Ansted, W. Va.; Dr. C. R. Enslow, Huntington, W. Va.; Dr. J. E. Musgrave, Handley, W. Va.; Dr. H. L. Carter, Danville, W. Va.; Dr. R. K. Buford, Charleston, W. Va.; Dr. L. S. Henly, Nuttallburg, W. Va.; Dr. J. H. Bannister, Thurmond, W. Va.;

Dr. D. P. Crockett, Big Creek, W. Va.; Dr. A. E. Tieche, Winding Gulf, W. Va.; Dr. G. P. Fisher, Kayford, W. Va.; Dr. C. A. Fleger, Seth, W. Va.; Dr. Jas. Putney, Charleston, W. Va.; Dr. J. E. Canneday, Charleston, W. Va.; Dr. J. A. Campbell, Beckley, W. Va.; Dr. R. D. Black, Cabin Creek, W. Va.; Dr. S. B. Lawson, Logan, W. Va.; Dr. W. H. Wilson, St. Albans, W. Va.; Dr. H. H. Farley, Logan, W. Va.; Dr. J. W. Rife, Kenova, W. Va.; Dr. W. M. Dickerson, Logan, W. Va.; Dr. J. R. Bloss, Huntington, W. Va.; Dr. F. C. Hodges, Huntington, W. Va.; Dr. R. J. Wilkinson, Huntington, W. Va.; L. T. Vinson, Huntington.

MEDICINE AND SURGERY

PREGNANCY AND NEUROSYPHILIS

In a study of 5,410 syphilitic patients in the Hopkins Clinic, Joseph Earle Moore, in the Archives of Internal Medicine, calls attention to the fact that pregnancy occurring at the time of infection in some way modifies greatly the severity of syphilitic manifestations, especially neurolues. It seems probable also that other pregnancies occurring after the conceptional infection increase still further this protective influence against invasion of the nervous structures. We quote his

Conclusions

1. Clinical neurosyphilis is about three times as frequent in men as in women.

2. The nervous system of the two sexes are, however, invaded with equal frequency in the early states of syphilis, as is shown by the relative percentages of spinal fluid abnormalities.

3. The course of early syphilis is markedly altered by the simultaneous occurrence of pregnancy.

4. Pregnancy is the most important point of difference in the ordinary life history of the two sexes.

5. In women with late syphilis (of more than one year's duration), the incidence of abnormal spinal fluids is twice as high in a group of sterile women as in a group in which one or more pregnancies have occurred since infection.

6. Almost half of the women who are clinically neurosyphilitic have not been pregnant since infection.

7. Multiparae seem to be less liable to late asymtomatic neurosyphilis than primiparae.

8. It is suggested on the basis of this study that pregnancy is one factor which may partially account for the comparative freedom of women from neurosyphilis—Vest.

ABSTRACTS JOURNAL OF LABORATORY & CLINIAL MEDICINE, AUGUST, 1922.

By LOUIS A. LEVISON, M. D., Toledo

The high mortality rate of pernicious anemia warrants the presentation of any data which might enable a diagnosis of the latter disease to be made earlier, or even suspect of its oncoming. This is the motive which actuates the report of three cases of long continued focal infections passing through the stages of achylia gastrica, pernicious anemia, and death. The sequence of events whereby achylia gastrica preceded pernicious anemia in a chronological order in no way determines the former as an etiological factor of the latter, but the purpose is to point out a possi-

ble relation. Achylia is assumed in this connection to mean a condition of absent hydro-chloric acid, as shown by Congo red, with a total acidity that is very low, or altogether absent. The conclusions of the study of these cases are:

1. Three cases are cited, in each of which patients having foci of severe infections passed through the stage of an achylia gastrica and later pernicious anemia.

2. The assumption that long continued foci of infection may depress the gastric secretion and produce an achylia gastrica is justifiable.

3. There is no reason to believe, on the basis of any evidence yet brought to bear, that achylia in itself is a predisposing cause of pernicious anemia.

4. There is clinical evidence to believe that focal infections long continued may depress the function of the bone marrow and prevent the formation and development of red blood cells.

5. It is urged that when achylia gastrica is discovered in a patient showing evidences of chronic focal infection that the possiiblity of the development of pernicious anemia be carried in mind with the view of insisting that all infections be removed in so far as is humanly possible. Achylia is used here in the sense of a depression in the gastric juice with relation to the HCL and not necessarily with complete absence of gastric ferments.—F. C. Hodges.

X-RAYS IN OBSTETRIC PRACTICE. Edward W. H. Shenton, M. R. C. C., Lancet 202:860, April, 1922.

The writer states that useful information might be obtained from subtle evidence many times were it not for the fact that "surgeons of the present day ask for radiographic results which in their clarity would almost satisfy a common jury."

He goes on to relate that two conditions hamper radiographic findings in obstetric cases, namely the quantity of fluid and the paucity of mineral matter in fetal bones. Perhaps by the fourth month, and certainly by the fifth or sixth, the rays may often be useful in determining the presence of pregnancy or abdominal tumor, position, relations of head and pelvic canal, and the presence of twins.

He cites one case from his own practice where use of the x-ray obviated a contemplated induced premature labor because there was shown to be room and to spare in what was at first thought too small a pelvis.

These pictures will not often be clear but they will be sufficiently so to give the needed guidance and the x-ray exerts no harm at all upon the fetus.

As to technique he says: "I would suggest anteroposterior position for head and pelvis, the latter being tilted so as to give a comprehensive view of the pelvic canal. Stereoscopy is useful if practicable. For the abdomen the lateral position, the patient lying on her side (is the proper one). The plate must be large and comes well over the crest of the ilium. Intensifying screens and other aids to rapidity in the photographic process will be essential."

THE EXAMINATION OF THE TEETH IN GROUP MEDICINE. Boyd S. Gardner, D. D. S., Mayo Clinic, Minnesota Med. 5:356, June, 1922.

The necessity of roentgenographical examination of the mouth is "not entirely appreciated either by the medical or dental professions. Certain members of both professions still consider it quite ridiculous" to make such an examination providing the patient is wearing a full upper or lower denture. However, this examination is necessary and is due the patient suffering from a systemic condition wherein a focal infection is suspected.

There are many advantages in checking up the clinical and roentgen ray findings at the same time. Full mouth roentgenograms make comparisons with the normal possible. Residual roots and granulomas, impacted and unerupted teeth are often unexpectedly revealed in the course of a thorough examination.

Extraction is discussed in its general aspects. Alveolotomy carried out with proper restrictions gives satisfactory results and should not be condemned unqualifiedly. Extraction alone is not sufficient to eliminate oral infection and dentists should make a report of dental findings to the physician whose responsibility has not ended by simply recommending extraction. It is the duty of the dentist to decide whether local conditions require extraction and the duty of the physician to decide whether systemic conditions warrant it, and cooperation between both professions is earnestly to be sought.

RADIUM TREATMENT OF MYOMA OF THE UTERUS AND MYOPATHIC BLEEDING. C. Jeff Miller, M. D., Surg. Gynec. Obst. 34:593, May, 1922.

Any other than the present very satisfactory surgical method of treating myoma of the uterus "must present properties rarely possessed by a therapeutic agent, and the result obtained by such a remedial agent must show that the relief is permanent and that its use is safer than operation and gives a larger percentage of preservation of physiological function than an operation performed by a skillful surgeon."

The writer believes that radium is such an agent and for proof cites results secured in one hundred and eighty-three cases treated with radium and now observed over a period of more than seven years. As proof that he is not radical upon the subject of roentgen therapy he cites the fact that he has employed surgery in nearly an equal number of such cases during the same period, according as the factors of age, type, social situation, size of tumor, condition of the appendage, evidence of previous infection, and general condition of the patient demanded this form of treatment.

A review of these cases treated by radium "warrants" the conclusion that a large percentage of the cases of myoma of the uterus, formerly subjected to radiation can be permanently and safely relieved by radium and that practically all cases of uncomplicated essential hemorrhage can be cured by radium."

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THE GENERAL PRACTITIONER'S COMPENSATION.

Read at Annual Meeting W. Va. Medical Assn., Huntington, May, 1922.

By O. S. HARE, M.D., Bluefield, W. Va.

You will find as I proceed in the reading of this paper that there is not being offered any scientific truth or, in fact, anything that is new. It is the telling of an old, old story, which is familiar to each and every General Practitioner: a plain statement of the conditions under which he is working. I would not place medicine upon a purely commercial basis and rob it entirely of its old standard of ethics and tradition, but I do feel that there is room for improvement of the General Practitioner's position relative to present-day compensations. It is with the hope of pointing the way for this improvement that these facts are being presented.

The time has been, when the doctor's life was not so strenuous as we now find it. Living standards were not so high, competition was not so strong, but the doctor of today is endeavoring to live up to present day requirements and keep pace with the scientific progress of medicine without the additional advance in compensation. Medicine is no longer looked upon from a purely altruistic point of view and we should come to a realization of this fact. If we could but come to feel that we have something to sell and that our education, our training, our time and services are, "our stock in trade," and that our compensation should be in keeping with their worth, we will have made considerable advance for the betterment of the profession as a whole.

Young men, in looking over the many trades and professions that are open to them, in deciding to take up the study of medicine, do not stop to consider the road they must travel before having that desired M.D. to their name. They do not stop to consider their special qualifications; they do not investigate the working conditions or the

doctor's compensation for such work. They base their decision, the chances are, wholly upon sentiment.

They should be thoroughly informed of the demands made upon the active General Practitioner; as to the hardships he must undergo and the deprivations he must suffer. That he is on duty twenty-four hours each and every day, that rain or shine, whenever he is called he will feel duty bound to respond and give the best that is in him, pay or no pay; that though he himself may be sick, unless his condition is serious, he must answer the call for fear some uncharitable patron will say that his illness is but an excuse, due to the inclemency of the weather. They should be made to realize that the doctor lives, by charity, of public opinion.

Aside from the knowledge of the life of a physician, there should be taken into consideration the expense and time required in obtaining a medical education and the relative compensation, as the standards for such education are constantly being elevated. Most medical schools not only require a high school education, but a college degree for entrance, thus, making sure that there is a foundation of a literary education upon which to base the medical training. All of this is as it should be, and must be, if medicine is to continue to progress and fill the honorable place that it should, for it will be the men who have a broad and thorough literary education as a foundation upon which to build medicine, that will crown it with success.

Therefore, taking into consideration four years of high school work, four years of college work, four years of medical work, and one or two years of internship, thirteen or fourteen years have been consumed. All years of work and expense, in preparation for a profession which will net an income, in most cases, less than that of a skilled mechanic. Besides, a skilled mechanic receives during his training, a compensation, at least, sufficient for a maintenance.

The fact that he is a victim of circumstances is in a large measure responsible for the doctor's unsatisfactory compensation. The niche which the General Practitioner, or the family physician fills, is peculiar unto itself. His intimate knowledge of his patients and their circumstances is mostly responsible for his failure to demand pay for his services, for it is common knowledge that the doctor is the last man paid. Most anyone can put up a hard luck story to the doctor and get away with it.

This attitude of the doctor towards the public is unjustifiable. He sacrifices his own pleasures and comforts and gives his time and the skill which he as acquired so expensively; the skill which has grown out of ages of hard work and tedious years of research from countless unrewarded predecessors.

This failing of the doctor, his willingness to take what is left, or rather what he can get, has been the case for ages past, in fact—I believe it dates from the time when the doctor, parking on the street curb, guaranteeing a cure for most any of the ills to which man was subject, received for such services anything the thankful or thankless patient might deem fit to hand him. And, considering that fact, it isn't

far-fetched to arrive at the conclusion that the doctor, in his professional infancy, established the custom of "tipping."

In this day of organization, the doctors are probably the most disorganized of any class of men. They are the dupes of the charity and dead beat class, and of the state and county who allow them to pay taxes for the up-keep of charitable institutions and yet allow their services to this class to become their own loss and expense; they are the advertisers (often times unknowingly) of the many commercial pharmaceutical houses, who use them as a medium for their numerous wares with catchy names, influencing the public to self-medication; and they are imposed upon by the "obliging" druggists who so willingly suggests to the public a remedy for their complaints.

More is expected of him, by the public in general, as a result of this disorganization. They expect him to be continually on the go; and he becomes so absorbed with the successful practicing of his profession and in the progress that the profession is constantly making, that he does not give the proper time or thought to his income, or to the collection of the just and honest debts which are due him.

As I stated in the beginning, I would not place the practice of medicine upon a purely commercial basis, but I would have it upon a firm enough foundation so that every doctor would receive a reasonable return upon his investment, and I believe the keynote to this foundation is cooperation among the doctors themselves. Their many bickerings, petty jealousies, their ruthless treatmennt of one another, in fact—to sum it up, their undignified scramble for work and position tends to their own undoing. And this phase of the doctor's life seems to be becoming more and more common, for they are becoming more and more grasping as the stress of gleaning a livelihood becomes more pressing.

There has been considerable discussion of late as to a dearth of doctors, but these facts would lead one to believe otherwise. However, I am of the opinion that the trouble comes from improper distribution. Our towns and cities have a plethora of physicians, making competition very strong, and this fact also has a direct bearing upon the physicians' compensation or income, besides creating a feeling of discord among them.

Through cooperation they could eliminate the dead beat by forcing him into the pay class or the charity class; by cooperation they could secure legislation to competently take care of and relieve them of the burden of the charity class; and by cooperation they would not longer need to trample upon the rights of their fellow practitioners, to disregard ethics and depose themselves in their own and in the minds of the public in general by their bickerings and jealousies.

I believe that it is the hope and dream of most General Practitioners that the time will come when they may take up their chosen line of work and get away from the drudgery of general practice. But this hope with the majority remains only a dream. The years slip by, and for one reason and another, they keep deferring the time when

they shall take up the study of their specialty, and the most common cause for their putting it off from year to year, is obligation and lack of funds.

And recognizing that the General Practitioner is the corner stone, the very foundation upon which the medical fraternity is built, it behooves us, through cooperation to better the unfavorable conditions, that he may become a better General Practitioner or a worth-while specialist, thereby rendering a service to both himself and the public.

Medicine is a product of evolution, and present day conditions are but an indication that somewhere and somehow the regular medical profession is falling short of the demands and expectations of the people. As a result, we have the Chiropractor, the Faith Healer and all the other cults and popular healing arts. And knowing that oftentimes they promise a complete and absolute cure for most any and all diseases, is it any wonder that they are so well patronized by the numerous neurasthenics, hypochrondriacs, the spiritually and mentally sick, who come to us and which we "pill" day in and day out without giving any relief? If we are not capable, or do not have the time to treat these people as they should be treated, why not refer them to a capable, conscientious psychologist? If we would make this a practice and cooperate with one another, soon the chiropractor and his like would be but a memory.

The profession of medicine should not come within the hazardous occupations from a financial standpoint. With the elimination of the dead beats, the charity patients, the proper distribution of the doctors, and with fees that are reasonable, the average busy practitioner should receive sufficient compensation to place him in a position whereby he may maintain a living standard in keeping with his social position, and also to allow a margin that he may lay away in a savings account or some good investment, sufficient to insure for him and his an independence in his old age.

10 Bland St.

Discussion

Dr. Page B. Barlow, McMechen: Mr. Chairman and Members of the Association:

I have listened very attentively to the paper of Dr. Hare on "The General Practitioner's Compensation." I have enjoyed the paper very much as I consider it a subject of vast importance to each physician. And I feel confident that all others here have enjoyed it equally as much. It was an exceptionally good paper, so well composed, not leaving a stone unturned that I am at a loss to know where to begin to add anything to the already good paper or object to any of its phrases. In other words, it has expressed my sentiments and thoughts along that line and I wish to congratulate Dr. Hare on his excellent paper.

The General Practitioner is nothing more or less in the eyes of a certain class of people than a pubic servant. He has no time of his own; he is subject to calls at all hours, day or night and cannot be regulated by the eight-hour system, or opposite shifts. But is continuously subject to both good and an-

noying calls at unreasonable hours. We physicians never receive just compensation for our services, neither are we appreciated by a class of people to the extent that a physician should be appreciated, and it seems the more we do for nothing the least we are appreciated.

One of our leading physicians and gynecologists made a remark on one occasion that anything that people receive for nothing "stunk," that it had a peculiar odor to it and well do I believe his words were true, because we are left with the impression sometimes the more charity we do the less we are appreciated by those who should hold up our hands.

When I think of the long hours, the irregular hours, the continuous application, I am led to believe that we never receive either in money or praise our just consideration. No, the General Practitioner is never compensated for his years of application and expenditure of money to qualify him to practice his profession.

As to charity, charity begins or should begin, at home. I think every physician that practices his profession is burdened with the so-called charity cases which, if true, charity should be taken care of through a state fund or institution. Free dispensaries I believe, have made paupers out of many who should pay. We physicians can blame ourselves for many dead beats. It is true we are organized, but organization must be complete and harmony must exist as a whole in each community amongst the physicians in order to eliminate the dead beats and make them pay some one, if not ourselves. Make them pay our brother practitioner. Speaking of organizing, I am reminded of the colored man who was driving a four-horse team along the road and he overtook a man walking. He invited him to ride with him, which he did, and as they rode along the road the driver boasted of his ability to use the lash or whip and he said, "Boss, do you know that I can cut a fly off the tip end of that lead horse's ear and never touch the ear?" so they continued to journey along the the white man spied a hornets' nest suspended from a limb hanging over the road and he said, "Mose, if you are such an expert with your lash, let me see you cut the tip end off that hornets' nest." Mose said, "O, no, boss, those gentlemen are organized." And we must be organized, and the only way this can be done successfully is to have a meeting of the physicians of your section and after organizing appoint a publication committee to which every member shall within a specified time hand a list of names, occupation and address of able-to-pay patients, who either through carelessness or lack of honest principles, have owed them bills unjustly long. This society or association should be known as Physicians' Protective Alliance. The object of such association should be not to forbid any one who chooses to attend delinquent ones, but simply that the members know of those who can pay and will not, so that any one may either decline to attend them or do so with his eyes open. Every few months or year new lists should be gotten up and handed in and a new volume issued. From such lists the deserv-

ing poor and those unable to pay should be omitted for the very good reason, "You cannot shear a naked sheep."

I am reminded just here of the story of the bull and bumble bee. Delay in organizing the Physicians' Protective Alliance is dangerous and going to sleep on the job and not looking after the interest of yourself and brother practitioner always at the very earliest possible moment might be too late and when we have spent the better part of our lives rendering services to the dead beat, we will wake up, but the bull will be gone. Now I will relate the story of the bull and the bumble bee. On one beautiful summer morning there was a beautiful field of clover just in bloom. The bees were gathering their honey from its blossoms when a bull was turned out of his quarters into this field of clover and he spied a beautiful blossom of nice red clover. He threw his tail over his back and made for it, and just before reaching the clover a bumble bee lit upon this blossom to gather its fragrance, but the bull gobbled up clover, bumble bee and all, and the bumble bee thought to himself, "What shall I do? Shall I sting him good and hard in the mouth and make him let me go, or what shall I do?" And while the bumble bee was parleying in his own mind what course to pursue, the bull swallowed him into his stomach. Here the bumble bee found a nice warm comfortable place and the question arose in his mind again, "What shall I do; shall I sting him good and hard now and make him let me loose, or will I lay down here in this nice warm place and take a sleep, and when I waken I will be stronger and more able to sting him good and hard and be released." So he lay down and when he wakened the bull was gone. So don't put off your local organization and dead beat list for fear when you waken it will be time for you to retire from your toils, trials and disappointments and lack of compensation for your services rendered to dead beats.

When I spoke of charity beginning at home it is true we owe certain duties to our patient. You also owe equally as great a duty to yourself and your dependents if you have any and no man should sacrifice or neglect the last two highly necessary common sense duties. Amid all these duties he must have an eye like an eagle, a heart like a lion, and a hand like a lady's and heaven knows that considering the narrowness, the crookedness, the steepness, and the roughness of his eventful life's road, every true physician deserves far greater honor and a much more comfortable support and compensation than he receives.

How good and pleasant it would be if the worthy physician could exclaim: "Behold the end of my toils," and go on the retired list at an early age, and pass the balance of life away with honors and blessings of a competence, like the evening of a fine day, leaving the field, with its contents and its conflicts, criticisms and competitions open for other and younger men, without waiting for his errors, omissions, trembling hands and failing memory to prove that he is not what he once has been. (Heaven pity the struggles and sorrows of old physicians.)

Yes, much better for him to retire from practice before practice retires from him, from labor to rest, from war to peace, from trouble to happiness, with a heart full of gratitude and a soul full of precious memories.

Every year measuring by toil, vexations, anxieties, discouragement, mal-treatment, the average practitioner has many years of brain work and mental strain, has to endure all kinds of criticisms, and does more charity than any other person in the whole community.

It will only be when the General Practitioner can stand where Moses stood and view the land and sing, "When all my trials and troubles are o'er and I am safe on that beautiful shore, that will be glory, yes glory, for the physician, and he will then have received his compensation.

I thank you.

Dr. Judy

First, I want to compliment the doctor highly upon this excellent paper, and also Dr. Barlow upon his discussion of it. Dr. Barlow suggested a remedy for the dead beat. I presume we have those in every community in West Virginia, and of course we have also the worthy poor. Out in Indiana they have an organization, and they handle it like this: When a man is able to pay and will not, the bill is turned over in a reasonable length of time to an attorney. We have not time to collect these bills ourselves, and yet if we give them to a collecting agency they get fifty per cent. The attorney should report to every physician every thirty or sixty days a list of the dead beats in that territory. Now, we could handle those fellows, because we are handling a class of men who are always gunning for us in malpractice suits. We must hang together, as the author of the Declaration of Independence said, or we shall all hang separately. By standing together in this matter we can eliminate a great many of the deat beats. We can talk about the matter, but we want to get down to something concrete. I believe that it would increase our compensation from twenty to twenty-five per cent. I know it would increase mine that much, and I expect it would increase yours.

Now, as to specialists, I think that we should have some standard for specialists. I think that a man should stay in general practice for a certain number of years, and should have other qualifications, before he is rated as a specialist in any branch of medicine. I am certainly in favor of the specialists and group medicine. We do not have enough of them in West Virginia. The field of medicine is too big for any man to master all of it. No man has the time for it. By having group medicine we could refer the patient to each man and have the proper diagnosis made and the proper treatment applied, and in that way we could save a great many of our patients from going over to the chiropractors, and from this cult and that cult and the other cult.

Dr. Harry Hall, Wheeling.

I remember that in a paper I read some time ago I said that a man referred to himself as being a General Practitioner with some embarrassment. The general practitioner

is somewhat of a rarity. We nearly all run into a specialty of some kind, and, as Dr. Judy says, there should be some means of demarcation. Take a man like Dr. Reed, who has done everything. Dr. Reed has always been a very excellent diagnostitian and surgeon. We come to these meetings, and are overwhelmed by the amount of referring we have to do. If a general practitioner gets a skin disease he must refer that; he must refer the surgical cases and the urological cases. It seems to me that we are carrying it almost to an extreme and I sometimes think that the general practitioner will never get anywhere unless he charges a lump sum for the cure of nephritis and pneumonia. It takes more judgment, perhaps, to cure a case of nephritis than anything else, and at the end of say sixty days, he gets $40 or $60.

Dr. Wise.

I believe that most of our troubles begin at home. If I go and ask for money I generally get it. Sometimes I tell a man a joke and make him ashamed of himself, and then he will pay. I might say that I have seen so much of this, and people expect me to do so much for nothing, and so do not do the work for money's sake. Go help some worthy negro; boost the orphan. For what is the money worth?

Now, is the doctor dead, or is he only asleep? He may be dead, but I do not think so. Human nature, my friends, is just the same. If I get ten dollars when I have cured him, he is happy and so am I. Now, if you have the proper technique, you can charge what you please and get it. That is where the specialists have the general practitioner beat. It does not make any difference to me, because I get what I ask. It is our fault; we have worked in the wrong way. You see chiropractors and everybody else getting what they ask. We are to blame for a whole lot. If you will go after the money you will get it, but we do not go after it. I will say one thing, the general practitioner is the poorest business man, so far as collections is concerned, in God's world. He does not ask anything until the people have moved away. It is our fault. If we would ask more, we would get more.

Dr. Hood.

This question is an important one, that of black listing patients and naming people as dead beats. In all such procedures you must let ninety-nine escape rather than do one innocent one a wrong. I had this experience once, just on the eve of making out the report—a man came in and paid me $150 which he had owed me for seven years. You must be careful not to put on a list of dead beats men who have not the money but who will eventually pay.

The general practitioner is not a general practitioner in the old sense. He is a referrer of patients and to be a referrer of patients he must be a man of more ability than the men to whom he refers them. He has to know about everything, because every patient who comes before him must be sent to the best man available. The whole substance of ethics is that the best interest of the patient is the first consideration.

Dr. Hare, closing the discussion.

I appreciate the nice things that have been said about this paper. I did not know when I wrote it, of course, that it would create so much turmoil. There seems to be quite a number interested in the general practice of medicine.

One of the few things I wanted to bring out in the paper is the charity work. We all know that the doctor is a taxpayer. The doctor has been doing charity work ever since he has been practicing medicine. The doctor is a taxpayer, he pays taxes to the state to maintain public institutions. The poor we have always had and always shall have. As to the dead beat, we do not want to do an injustice to anyone, but there are people who make a practice of beating the doctor. If you demand payment they go around to some other doctor. There is always some doctor who is willing to do that deadbeat's work for the influence he has.

You spoke of the dearth of doctors, but in my opinion there is no dearth. You see doctors clamoring for work. You see doctors doing the practice of hotel keepers and boarding house keepers for nothing. Why? For their influence. Now, those things should be corrected. A doctor should not be supposed to go out and do any kind of work for nothing when he is contributing to the upkeep of the government.

THE PROFITEERS

By C. H. MAXWELL, M. D., Morgantown.

Read at Annual Meeting of West Virginia Medical Assn., Huntington, May, 1922.

My first office was over a store in a town deader'n a door nail. I had borrowed a horse from my father, bought a pair of saddle bags with borrowed money, sent my wife and babies to sponge off her father, and sat down to wait for some one to drop in for me to try my brightly burnished skill on. Hours and days passed. No one seemed to need the new doctor. No one seemed to have the flu. Time kept fugiting, and finally one blue afternoon I heard some one hesitatingly climbing up the stairs. I breathed shallow and fast for I felt that the fatal hour of my first patient was at hand. An anxious-faced, wild-eyed mother entered my office with a twin in each arm. She seemed much distressed over the condition of her babies. They were thoroughly scabbed with pustular eczema. She said the more she washed them the worse they got. I prepared what medicine I could for them out of my meagre supply. Then I expected my first fee. She untied a ragged handkerchief and got out what she had — twenty cents. Those were the biggest dimes I ever saw, and I began to feel that I would soon have two pieces of money to rub together in my pocket. This was to be my first fee, and I always had promised myself I would put it away as a memento of the end of hard times. Have I still got those two dimes? I said to her, "You had better keep the money and get some gauze for dressing the babies." The twenty cents are still unpaid and I still remember the look of gratitude that the mother of those twins gave me, and I have that memory hidden away somewhere as full compensation for my first patient.

The Instant Answer

Dr. Brown was engaged on an obstetrical case. When labor set in he was unable to attend, and suggested that the new doctor be called. The husband called him up and said, "Doctor, my wife is in labor, I wish you would come over." Without any preliminary diplomacy the new doctor said, "Have you got any money?" Instantly the reply came, "Yes, I have plenty of money, but you won't get any of it," and hung up the receiver.

This retort seemed to me well-timed and proper. Just a few doctors are as undiplomatic as this one, but there are a few. These few make the rest of us who had been taught to give the patient the first consideration feel sorry for those whose sole aim is money, and who never seem to think of anything except how much they will be able to get from a case. There are men who never go to a patient unless the money is sure. They evidently have never been taught that a charitable act or humane call is part of the teaching of the profession before the day of old Aesculapius.

The Washerwoman

The widow with five little ones to support has a tough time to make a riffle. This is true if she has abundant means and all the conveniences of a modern home. But if she lives in rented rooms, and takes in washing as a sole means of support, her lot is indeed a strenuous one. I doubt if the financial acumen of a Morgan or a Rothschild would be able to prepare a budget for that widow that would meet the conditions of rent, food, clothing, school and medical attendance.

One of this widow's children fell into the hands of a doctor that rarely sees anything wrong with a child except "diseased tonsils." Most of you have met this doctor in the course of your work in the medical society or in consultation. He insisted that the tonsils should come out, and out they came, and with the tonsils they were pressed out of the widow's slender means, $45. The tonsilotomist possibly saw nothing but the money at the root of the tonsils. This may have been what he was looking for, and cared little about where or how the money came from if only he got it. A doctor who knew the widow well, and who had done work for her, remarked: "Dr. Tonsilor charged my washerwoman $45 for taking out the little girl's tonsils. He never seemed to take into consideration the way the widow has to earn her money.

The doctor who insists on his fee without considering how the other fellow is to raise it has not considered the full scope of his mission.

The Cripple

There was a young man working in the office of a coal company. He was fooling around a drawer filled with dynamite caps. They blew up and knocked his eyes out and one hand off. The coal company after years of dallying paid him a neat little sum of money. The young man had married the girl he had promised before the accident, and the county and neighbors and the wife eked out an existence for the cripple and rapidly-appearing babies. After the cripple got his money from the coal company, what did he do with it? Did he buy a

little home? Did he invest it in liberty bonds? Listen! The automobile craze struck him and his family, and he bought a high powered machine for his wife, and family and himself to gad about in with a borrowed chauffeur.

Some of you might say he had a right to spend his money as he saw fit. But had he? I am not writing this true story to specially censure the folly of the cripple, but I do want to condemn the business man who would take the money from him merely because he could get it without laying himself liable for obtaining money illegally. The justification in his own conscience — if he had a conscience — is the convenient saying, "If I don't do it, somebody else will, and I might just as well have his money as anybody else."

This has been the camouflage behind which the thief has hidden for a long time. It would only take opportunity to develop the dangerous embezzler or highway robber from this spirit of battening on the weakness of our fellow man.

This blind cripple's high priced machine sits by the roadside near the cabin in which he lives, the cabin costing less than one-third as much as the auto, and the man who sold the machine passes as a high grade business man. What do you think of him?

The Sixth Sense

"How many senses have you?" the teacher said to the boy.

"Six," was his prompt answer.

"How's that? I have only five."

"Yes, but you don't have any common sense," came from the boy.

This is the sixth sense, and the doctor that does not possess it in a highly developed degree works under a continual handicap that can hardly be overcome. The man may be brilliant in class, make splendid grades in the laboratory, do high grade work in physical diagnosis, differentiate the many pathological lesions found in the patient, and give promise of brilliant career, but falls down utterly when he tries to co-ordinate his findings, and apply his knowledge in treating the indigestion of the baby.

The application of this sixth sense is the criterion by which we must judge our success. The army doctor that bandaged an injured hand, then soaked the bandage with ammonia had no sixth sense and very little of any kind. The physician that poured a tablespoonful of turpentine down a five-year-old child was no better.

The doctor with no sense at all is the one called on a confinement case, and gave the woman a hypodermic of pituitrin before making any examination. And followed it with three more within an hour.

The Work Fiend

The man who tries to do all the work within reach without taking thought of his physical being will soon pay the penalty of broken health. A man that will work forty or fifty hours or more without taking time to sleep and eat has as poor judgment as the man who tries to keep up his strength with alcoholic depressants. He hurries from call to call, rushes through with the patient, and jumps in the automobile and is off like the wind. He never stops one minute to talk socially or

inquire into the well-being of the community. He never takes any interest in public affairs. He never attends medical meetings or church or political gatherings, or welfare work or schools. He turns all this over to others and continually drives himself into the teeth of an ever widening practice, and attempts to cover everything that comes his way. He neglects family for work. He never has a thought of anything but work, and more work. We scorns anything that has relaxation in it, or has a bearing on anything but his work. Such a one gets on for a while, but the current will be short circuited and he will be left in a muddy road far out in the country with no lights to come in with. The work fiend is almost as bad as the one who wont work. Let us cross the two and have a better breed.

The Fool

The doctor that persists in taking his valuable time and using it on bums with the idea that his is a work of humanity, lacks in common sense, and is almost as bad as the man who refuses to do any work without the pay is guaranteed beforehand. These easy marks are in most communities. They have a false notion that because a person is sick (or pretends he is sick) that he needs medical attention. That is all right in spirit. But for a doctor to keep on and on when he knows the fellow never intends to pay, even if given full opportunity, is not fair to himself, his family, the community, or to the patient himself. For it fosters the notion that no matter how improvident one becomes, he can always get medical attention when needed, and he does not need to lay up for a rainy day.

The Rent Hog

I suppose that rent hogs have always existed in every community. But in the last three or four years they have so multiplied that they have become a menace to every prosperous community. It seems that the new breed is much more vigorous than in days gone by. They seem willing and able to abstract unbelievable rents from people who come into a community to better their condition. "They can't find any place to stay; sock it to them." This is the motto of these enemies of progress. To give a concrete instance or two. I was called to see a sick child in a shabby flat over a bakery. When I told my bill, the mother said, "You don't seem to be profiteering."

"What do you mean?" I asked.

She said, "Ever since we came to town it seems that everybody has been trying to dig us. They seem to think we are made of money. My husband gets six dollars a day, which is big for him; but we have to pay $108 a month for these seven little stuffy rooms, over this smelly bakery, with no porch for the children and not even a place to stretch the clothes line. But it was the only place we could get, and we so much wanted to get where the children could go to school."

Another instance: Two families live in an attic, with a curtain stretched between them for privacy, each one paying thirty dollars a month rent. A garage that rented for $90 was jumped to $325. These are the worst cases of profiteering that I have come across, but there

has been a tendency on the part of most property owners to squeeze the last dollar possible out of the renter regardless of the effect it has on the general welfare of the community.

These rent hogs prosper personally, but they put a damper on the progress of the community by making it impossible for people to live in the community and pay the exorbitant rents demanded. Those who try to make a go of it, have to give up and move to some other community where public welfare is considered as well as personal gain.

A Lefthander

"O wad some power the giftie to gie us
To see oursel'es as ithers see us."

Sometimes we get a glimpse of ourselves as seen by the other fellow, as witness the following incident in my practice.

A hurry up call came to me to go a couple of miles in the country on a confinement case. It was in the early spring, and,

The roads were not passable,
Not even jackassable,
And those that would travel them
Hadn't turned out to gravel them,
So I had to walk.
Splashing through the mud holes;
Jumping over ditches;
Straddling wire fences;
Tearing up my breeches.
Crawling round the fence posts;
Wading through the mire;
Slowly slopping onward
The goal was getting nigher.
Wading, struggling, sweating—
No joyful song or prayer,
Or shouts of hallelujah—
The mud was everywhere;
And more I was perspiring,
Wading, falling, splashing,
Crossing and recrossing,
Jumping, slipping, crashing,
Searching for a shallow way
Across the mud and muck;
But leading ever in the end
To worse and wretched luck.
And when the journey ended
It found me smeared with mud
From head to heel, from crown to sole,
All over every dud,
I needed water, broom and rag,
To mop and scrape the mud away;
It crusted me from shoulder down.
And from shoulders to my crown.
'Twould take forever and a day
To get the awful mess away.

I was in a good mental and physical condition to meet my new family. I was much elated to get a new one. The husband was not at home — stuck in the mud somewhere. The patient seemed distant and restrained in the presence of the mud begrimed new doctor. But what with chewing her gum and chewing the rag and the really good labor pains she was kept busy. I congratulated myself in showing this new family how skillful I was in handling confinement cases. She was a multipara and knew a thing or two herself.

About two minutes after the baby came the husband having been pulled out of the mud, came into the room. The wife turned to him with apology in her face and disgust in her voice and said: "I just tried everywhere to get a doctor, and couldn't find one, and had to take this one."

"O wad some power the giftie gie us,
To see oursel'es as ithers see us."

Gratitude

Two days before this incident I attended a woman who had lost five babies. When the sixth one came it too seemed dead. By persistent efforts long continued, the baby lived and breathed and cried. Before leaving, I leaned over the mother to examine the baby on the bed behind her. With a counternance beaming with gratitude and voice full of pathos she said in her broken English: "You good man."

The Proper View

A patient was sent to an eminent Chicago brain specialist. The patient saw the specialist twice. At the third consulation the specialist said to him: "I make no further charge. I have done you no good."

A good deal of our income would be lacking if we all should see things as this Chicago specialist did.

A young doctor and I had just been to see a typhoid patient that was running the usual course. The doctor was calling on the patient twice a day, as was the custom years ago. He felt his pulse, looked at his tongue, took his temperature and said:

"You are doing tip top. Just keep up the medicine. I'll see you again this evening."

After we left the house, as we rode along the highway, the young doctor remarked to me:

"I'd hate awfully bad to pay a doctor bill for doing no more for me than I did for him." He seemed to feel that his visits and the little influence his presence had on the patient's were not worth what they were costing the patient. The young doctor seemed conscientious that he should earn what he got. He seemed to put himself in the patient's place and looked at the case from that viewpoint. That young doctor looked at his work in the spirit of the true physician—the human standpoint. He remained in that country practice on top of the Alleghenies a short while longer, and then went to a city in an adjoining state. He has been chief executive of his city for years, in spite of the efforts of politicians to get the job away from him.

> "You hear that boy laughing? You think he's all fun; But the angels laugh too, at the good he has done, The children laugh loud as they troop to his call, And the poor man that knows him laughs loudest of all."

Probably some of us do not feel toward our patients as this mayor doctor. It may be that sometime we do not say to ourselves.

"Did I earn this fee? Is the patient five dollars better off? Has he been benefited five dollars by my call?"

Sometimes we do not put ourselves in the place of the patient but think most of ourselves. One doctor said to me:

"I always charge big fees, and you'd be surprised how often I get it all."

This doctor seemed to think that if he could just get the money, it made no difference to the other fellow. Another one remarked:

"I thought I'd slip on an extra $50. above the usual price. They paid it and never said a word."

This seemed to him to be a good piece of modern financiering. He appeared not to consider that $150,

for an appendicitis operation was fair compensation, but he wanted to "slip on" an extra fifty dollars to see how it would work.

People call the doctor they think best of, and if he charges well for his services, it is all right with them. As they put it: "You're the doctor, what you say goes." They pay the bill feeling that the doctor would not be unfair with them. That is the spirit of the people generally, and we should strive to maintain that spirit of esteem that the doctor is held in by the people. That spirit which says "My doctor is above doing a dishonest act; he always does the fair thing. Whatever he does is right."

The Dutchman

One day a man came into my office saying he needed some medicine. I looked him over, but found nothing specially wrong with him, but gave him a tonic on general principles. After getting it he said, "I did vant to git some insurances; I got no chop (job) now."

This was a new wrinkle to me, a deliberate effort to steal from the insurance company. I told him the amount of pay he would get would be so small that it would be hardly worth the trouble. In a week he came back, saying, "I feels some more betters."

In three weeks more he came in with his insurance papers and wanted me to fix them up, and he said, "You feex (fix) them up goot, I gives you ten dollars. Von time I gives Dr. Schnigletefritz ten dollars und he fix them up goot, und I got sixty dollars." He got no insurance this trip.

It is hard to believe that we have men in our profession who deliberately conspire with criminals, or people with false training to steal from anyone, especially when those they steal from depend on the honor of the profession to protect their rights. I find people who are unwilling to "graft" off a neighbor, but think it is all right to steal from a corporation, and rather glory in being able to get even with them. This is true in so many instances that corporations as a rule make every deal as if the other fellow were a crook and have to protect themselves against any possible loop hole in making contracts.

You probably know people who think they are extremely lucky if the street car conductor overlooks them in collecting fares, and giggle over their good fortune. But for a member of the medical profession to help a deluded patron to rob the other fellow is too humiliating to think about.

The Ditched Automobile

Late one rainy night I was called to see a sick baby. In turning the auto the front wheels ran off the cement road into a ditch. There seemed to be no way to get it out without jacks and levers. So I went on to make the call, hungry and tired and huffy. On my return I got some men to come along to help get the machine back on the concrete, expecting an aggravating, muddy ordeal. Imagine my astonishment to find the automobile back on the concrete road ready for travel. Who put it back, or why, I have never found out. If I had left it on the road and found it in the ditch, I would have said some enemy or disgruntled patient or hal-

lowe'eners had dumped it in the ditch. But somehow that little incident brought me greater pay than the money from the call. The night didn't seem so dreary, my hunger was abated, my weariness was gone. I have never found out who did it, but I have sometimes imagined it was those twins now grown to manhood, or some other grateful ones that I had done a good turn for. At any rate I will remember the incident as one of extreme pleasure coming as it did in this unlooked-for way.

All Of Us Profiteers

When we consider all the modern improvements in surgery, medicine, obstetrics, and laboratory and the penetration into the deep mysteries in a time when the practice of our profession is aided by so many marvelous advancements. The positive assurance we now possess of aiding those who come to us for help should make us proud that we belong to a profession that is standing on a firm scientific basis. It is indeed getting so broad, with its multitudinous ramifications, that we stand in awe at the unlimited possibilities around us and before us. With its ever widening circle of advancement, we are even now in possesssion of many means by which we can grapple the problems confronting us with the assurance of success which our immediate predecessors knew nothing about.

If we note the results of modern surgery, compared with that of even a few years ago, we are in a paradise of miracles. The dissemination of asepsis and cleanliness, carried out from the medical schools by the trained medical men brings this modern teaching into every nook and corner of the land, and the leaven is working to such an extent that the whole population will be as well posted on cleanliness and sanitary science as they are on the radio lectures. The thousands of trained nurses carry this same beneficience into the homes and communities everywhere. We can now send our patients in need of surgery to the hospital and rest assured that they will be treated so successfully that they will be home again sound and well. We do not need to send them to some great medical center to have them cared for. But we have in almost every community skillful men who do practically as good work as the great clinics of the land.

Internal medicine has made many notable advances in modern times. We can now combat diseases with means which we knew nothing of a few years ago and we fall into their use with scarcely a thought of the wonderful agents we possess. The prevention of small pox we accept as a matter of course. Vaccination against typhoid has added much to the means of preserving the well being of the race.

Diphtheria antitoxin has taken away the dread and terror of that diabolic disease, and we do not dread it at all now, well knowing that the disease will be throttled before it gets well underway. The more recent toxin — antitoxin immunizing against the disease offers hope of its entire prevention.

We drop into a drug store and call for a tube of 606 with almost no thought of the beneficience of this great discovery, and give hardly a thought of gratitude to that Ger-

man who tried with infinite patience six hundred and six times to evolve a remedy which produces as much improvement in the great black plague in six days as does mercury in six months.

X-ray with its usefulness in diagnosis, and its wide range of application in treating disease, has brought this modern wonder of the world to the threshold of every one.

The use of electricity in many diseases has given us a weapon that adds to our means of attack.

Radium has added another remedy of great usefulness. The application of common sense in handling tuberculosis has aided to check the rapid inroads of this scourge of modern times.

Infant feeding has advanced so much that we hardly hear of a death from gastro-intestinal trouble where there has been opportunity to apply modern knowledge.

The application of decent cleanliness to obstetrics has made the practice of that branch of medicine one of the safest in the list. Septic infection is rare, and "childbed fever" is almost a thing of the past.

The many useful remedies for every day use makes the practice of internal medicine eminently satisfactory. The modern iron and arsenic preparations, the silver salts, the improved iodines, hexamethaline, reliable digitalis, many useful coal tar compounds, local anesthetics, intestinal antiseptics, artificial digestants, organo-therapy, internal secretions, and all modern application for the benefit of the sick make us indeed profiteers in the broadest sense of that term.

We advance as it were over the dead bodies of those gone before, marking out the way to better things and have fallen by the wayside, but left their teachings and findings and discoveries as heritage to us. They have studied and labored and sacrificed and accomplished and fallen, but left their work in full benefit to us without any of their sacrifices. The sacrifice of the young life of Lazier on the altar of science has been the greatest boon to the human race in hot countries since the history of medicine began. Now the scourge of yellow fever epidemics is a thing of the past, malaria has been conquered, and the bubonic plague is throttled in his den.

With all the modern advancements and the many great beneficences that have been evolved for the use of the medical profession, we should indeed be thankful and proud that we belong to a profession above all others that has for its object the betterment of the conditions of humanity.

Some of us are weak, some are lazy, some are dishonest, some are selfish, some dishonorable, but the great mass of the profession is sound to the core, and as true as refined steel, and stands as a mighty bulwark between the masses of humanity and the ever-threatening advance of disease and death. Again I say we should feel ourselves highly honored to belong to this great profession and proud that we have chosen for our life work this broad field of humanitarian usefulness.

Discussion

Dr. C. G. Morgan, Moundsville.

My discussion will be so short that you might say there is no discussion at all. The Doctor told me

beforehand there was not going to be any criticism at all. He spoke of the young doctor called to the confinement case. I did not get the point in that case. He should not have asked about the money over the telephone. What he should have done was to call the husband into his office and talk to him like a Dutch uncle.

Dr. Maxwell spoke of profiteering from the widow. That is a subject that has always been very close to my heart, for when I was six years old my father died, and I have made it a point of my life to make no charge for a widow who is supporting herself and her child. And I do not allow any charitable institution to do it. I take care of it myself. That is the debt of gratitude I owe to those who helped my mother and us children.

Dr. Maxwell also spoke of the doctor who works and works and works and never takes a vacation. That is a mistake. He should take off some time. It is up to the doctor to do that, too. If he does not do it he is foolish. He is shortening his own life, and will not be able to give the same service to his people, those whom he wants to benefit, as if he took care of himself.

Dr. McDonald

I do not think Dr. Maxwell is as well situated as we are. I do not believe there is a specialist in this part of the state, if I tell him it is a charity case, but will do it and do it willingly. The only thing they do exact is the hospital fee, or operating room fee. But I have no trouble with specialists' charging anything if I tell them that it is a charity case.

Dr. Wise.

I think we often forget the men who have gone before. Our profession has generally been denied the commercial end of the great discoveries made in the laboratory. Many of them have been given to the world free. We often forget that all that is past and gone before has left its trail for us. Take it for yourself as part of your opportunity if you have to do anything today.

"How sweet to pause and meditate,
When I look back from Peter's gate,
Reward supreme, if one should hesitate,
And just remark, 'He helped the gods'."

That is one of the assets you can add when you get to your last hour, and it will help you to die easy. I have had undertakers tell me that they have had to pry the hands of some people open after death. They are grasping, grasping, grasping. But do some good things along the road and die with your hands open.

THE DIAGNOSIS AND TREATMENT OF CARCINOMA OF THE CERVIX.

Read before the Kanawha County Medical Society, October 24, 1922.

By DR.. WM. NEILL, Jr., Baltimore, Md..

When invited to present a paper before the Kanawha Medical Society, it seemed to me that a presentation of the present day diagnosis and treatment of carcinoma of the cervix might be of interest. Statistics compiled by The American Society for the Control of Cancer show that 11,965 women died of cancer of the uterus in 1918. Cancer in all of its forms accounted for approx-

imately 70 deaths per 100,000 population during 1920. A further statistical study shows that cancer mortality is gradually on the increase. The essential factor for laymen as well as physicians is that cancer arising in any region of the body is primarily a local disease, and curable if removed while in this stage. This applies especially for cancer of the cervix. The established relationship between chronic irritation and cancer gives basis to the hope that surgical prophylaxis in the treatment of tears and ulcers will reduce the incidence of cervical cancers. Watery and bloody vaginal discharge are associated with the idea of malignancy, not only in the minds of most doctors, but of most women. In spite of this, and also of the knowledge that the hopeful time to treat cancer is in its incipiency, it is nevertheless true that a large proportion of these patients come first for help in advanced stages of the disease.

As is true of malignant growths situated elsewhere in the body, they are most common in patients after forty years of age. This well recognized age period, however, should not prevent us from at all times being suspicious of cancer when a patient complains of irregular bleeding or discharge, as quite frequently we meet with cancer of the cervix in patients much younger. It is not uncommon to find it in patients between the ages of thirty to forty years; in frequent between the ages of twenty to thirty years, but occasonally younger. The youngest case I personally know of recorded was in a young married girl at the age of fourteen years, which I reported in the Western Medical Times. When first seen, the case was far advanced with extensive vaginal wall involvement, and the progress was rapid.

The most important aspect in regards to the treatment of carcinoma of the cervix is a careful examination and a complete study of each individual case. A careful history is indispensable. Pain in the pelvis, back, or legs coming on and associated with bloody vaginal discharge not only suggests cancer, but indicates an advanced stage of the disease. Recent disturbances of either rectum or bladder are bad omens as a rule. In the general interrogation and examination of the patient any complicating diseases should be discovered and their relation to any proposed line of treatment considered. Especial attention should be given the blood examinations. A Wassermann examination should be made, for while we do not know that syphilis is a cause of cancer, we often find it present. Attention should be given to the examination of the kidneys for an estimation as to their function. Utereral pressure caused by direct extension of the disease into the broad ligament regions is a most frequent cause of death in cancer of the cervix, and not primarily from the disease itself.

If after resting the hand on the abdomen and discovering no large fibroid, we introduce the examining finger into the vagina for a determination of the condition of the vaginal wall, cervix, and pelvic structures with the patient in a dorsal position, (let me advise the use of a thin rubber glove for this examination in justice to the next clean patient to be examined), and find an

obviously bleeding friable cervix or a huge cauliflower growth, we can at once be fairly certain of cancer. In all cases, however, a small clipping should be taken for microscopic study with the patient in the knee-breast posture. No anesthetic is necessary for this, and it can be obtained while the patient is on the examining table through a Kelly speculum with a suitable forceps. We know that other growths affect the cervix, and might be mistaken for cancer, such as marked erosions which are never seen in the virgin and the treatment here is destruction with the cautery, T.B., lues, or even sarcoma. A necrotic broken down cervical or uterine polyp might easily be mistaken for cancer. The tissue should at once be placed in a bottle with a large mouth, containing 10 per cent formalin solution, and sent to the laboratory. In our clinic, we will gladly make such a tissue examination and report, and if the patient is poor, and the request made, without charge. It is essential to place the tissue immediately on removal into the formalin and to mail, accompanied by accurate brief notes about the case. If the patient is fat or at all resistant, it is essential to give an anesthetic to secure complete relaxation for the examination. Gas and oxygen is preferable. Let me impress the importance of a bi-manual rectal examination, for only in this way are we able to learn the exact condition of the parametrial structures. It can not be accurately determined by a vaginal examination alone.

From a therapeutic standpoint, cancers of the cervix should be separated into several groups. First: Early operable cases where the disease is limited entirely to the cervix; second, borderline cases, those with vaginal wall involvement and thickening in the parametrium; third, local, inoperable cases with huge cervical growths and fixation of the parametria on one or both sides; fourth, cases with general metastasis.

A five year period of freedom from cancer after surgical removal has been taken as indicating permanent cures. This is, of course, arbitrary. Recurrences after operation do take place in the sixth year and may occur at any time so long as the patient lives. We must not belittle the importance of four year, three, or two year cures. If, for example, two methods give in a single class of cases, the same percentage of five year cures, and the one a far greater percentage of amelioration and shorter cures in the ultimate failures, it is clearly a more successful procedure.

Our personal position is as follows: Surgical removal in very early cases has a low mortality and a very substantial permanent cure rate; in moderate involvement of the parametrium and vaginal walls, the mortality rate is increased and the permanent cure rate decreased; in extensive parametrial involvement, the mortality is markedly increased and the cures very few; in cases with fixed parametriae and pelvic metastasis, the operative mortality is very high and cures unknown. With radium there is no mortality. In early cases there is a large number of permanent cures; in borderline cases the percentage of short clinical cures is very high and of permanent clinical cures, a

substantial number and greater than by operation. In extensive parametriae and vaginal wall involvement, the percentage of immediate relief is high and may persist for months or years. Clinical cures are obtained in an encouraging number of cases, but persist for five years only in a small proportion of cases. For the far advanced cases with obvious widespread metastasis there are no clinical or permanent cures, but palliation and relief of hemorrhage and pain can often be obtained. To quote percentages, I might say at The Howard A. Kelly Hospital we have been able to obtain the following results: In the very early cases, radium cures 50 per cent. In the borderline cases, radium cures 31 per cent. In the totally inoperable cases where a percentage of 1 per cent would be welcome by any other form of therapy, radium cures 9 per cent. In a hitherto hopeless group, namely, the recurrent inoperable cancers of the cervix, we have obtained a permanent cure rate of 10 per cent.

The Wertheim radical hysterectomy, in our opinion, gives a higher percentage of cures than does any other operative procedure. The statistics compiled at The Johns Hopkins Hospital 1913, show that 57 per cent of all the cases of carcinoma of the cervix that up to that time presented at the clinic for operation were operable; 11 per cent primary mortality and 25 per cent permanent cures. Wertheim, himself, states that 50 per cent of his cases are operable and that 50 per cent of those patients operated on remain well. Kronig states that no more than 20 per cent of the cervix cancers are permanently cured by operation.

It is of great assistance when doing a radical hysterectomy to insert a catheter into each ureter prior to making the abdominal incision. This is a great aid in allowing us to locate and preserve the ureters while dissecting and removing the broad ligament areas. It is of vital importance not to remove the fascia and para-fascial adipose tissue from the ureter. To do this often results in a necrosis of the ureteral wall from lack of sufficient blood supply and a resulting uretero-vaginal fistula. Careful palpation of the iliac glands should be made and although we rarely find any involvement at this early stage, it is not totally impossible to occur. Should a definite metastatic gland or mass be felt, the treatment should be carried out by the implantation of small radium emanation capillary points in to the disease. If we are dealing with a small, fairly movable uterine body with adequate relaxation from below, I believe a vaginal hysterectomy should be done in order to lessen the immediate operative mortality. In spite of our carefully selected cases for operation, the percentage of recurrences is high, from 75 to 80 per cent. In the past five years it is the exception that we treat by surgery these cases and have come to rely on radium as the treatment par excellence. Our experience has taught us to save an ever increasing percentage of advanced cases, and the argument for the early cases is that if radium cures some of the far advanced ones, how much better results can be expected from the early ones, and our results have borne this out.

The combination of operative removal and radium topical applications as a preliminary would seem a sound procedure in the early operable cases. We do not yet definitely know whether this increases permanent cures. We do know that it increases the difficulty of the operation. However, if certain changes are made in operative technique, these difficulties can be largely obviated. Sharp knife dissection must replace blunt dissection and the time for operation should not be delayed longer than 5 days after the radium application. Immediate local post-operative radiation we know is of no value and indeed is dangerous, as there is great risk of causing a slough of the vaginal vault, or in some cases the formation of a uretero-vaginal, vesico-vaginal or recto-vaginal fistula. We do feel fairly sure that any attempt at removal of a local cervical growth either with the cautery or curet not only does not help the patient, but makes conditions a great deal worse. In cases where a clinical cure has followed radiation, we feel that a radical hysterectomy at this time is a mistake, but believe it highly desirable that a long series of these cases be undertaken by very expert surgeons to definitely settle whether this is helpful or a harmful procedure. We feel quite certain that in the advance to be made in treating large intra-pelvic masses by burying emanation points of radium, that abdominal exploratory operations will be a great help. Radiation from the surface of the body, abdomen, back, or perineum has been employed chiefly as a supplemental method to other forms of treatment. We have never used this method alone in treating cervix cases, except those with extensive gland metastasis, where marked relief of pain has sometimes been observed, as well as some shrinkage of the masses, but never anything approaching a cure.

Technique of treatment: For a number of years we have employed radium emanation instead of radium salts. Our apparatus is an extremely simple one, as shown on the chart. The small tube with open cap is 1 mm. thick and made of brass, and is the container of the emanation tube. The emanation is usually in a small glass bulb. When used in cervical cases, it is best in a rubber cot with a string attached. The clamp is a convenient one for picking up the tube and placing it in the desired position. I also show a simple cotton cloth applicator in which the tubes are placed. These are ordered in advance of treatment and arranged to fit the individual case, which when spread out gives an even distribution over the growth. Also, there is an elliptical piece of lead 7 mm. thick and covered by several layers of gauze. It is used as a screen between the radium and intact vaginal mucous membrane. A number of these are used and are a great help in obviating proctitis. Also, are shown two types of needle carriers. The emanation tube is threaded into the end of the needle and after insertion into the area of disease, the tube is then pushed out into the tissues. These are left permanently embedded, but often come away and are discharged. In cancer limited to the cervix, one tube is placed at the internal os, one at the external os and a sufficient number, usually

four, distributed equally over the surface of the entire growth and held in place by gauze. We have estimated that a treatment of 3 gram hours is a curative single dose. It is better to give this in single rather than broken dosage. We frequently use a total of 3 grams of radium emanation in these tubes and complete the treatment in one hour. When small amounts of radium are used and longer time required, a somewhat greater milligram hour treatment is necessary, perhaps one-third more. When the parametriae are involved, the exposure should be increased to four or four and one-half gram hours. For extension on the vaginal wall, three-quarters of one gram hour, evenly spread out should be used for each 2½ sq. cm. of surface. Deep parametrial or para-vaginal nodules should be treated by the implantation technique. With a finger in the rectum and the thumb in the vagina, the points should be placed so that each cu. cm. of disease receives ½ millicurie of emanation. This should be done with gas and oxygen anesthesia. In high abdominal masses, this type of treatment should be carried out through an abdominal incision. Where no implantation is used, the usual procedure is to place the tubes with the patient in the knee breast posture without anaesthesia. After the treatment, the patients should report at intervals of two weeks for examination, and no further treatment given for a lapse of 10 weeks, unless there is obvious trouble outside of the area treated. The primary immediate results in cases treated according to the above plan are very good. Primary clinical cures in all but the advanced cases are almost invariable.

In conclusion, I might say that for the early operable cases with the disease limited entirely to the cervix either radium or surgery alone are justifiable. If operation is preferred, I am sure pre-operative radiation is helpful, but not post-operative. In late operable cases, the choice is with radium given locally over the growth and externally over the pelvis. In advanced cases, I advise radium given alone locally or by the implantation of bare radium emanation points.

THE DOCTOR AND THE PUBLIC HEALTH SERVICE IN THEIR RELATIONS TO THE PUBLIC

Read Before the Greenbrier Valley Medical Society

By DR. N. R. PRICE, Marlinton, W. Va.

The most successful persons I am acquainted with are those who most persistently attend to their own business. Welfare work, uplift, and new legislation seem to be a mania with many people of the present day, in the face of widespread lawlessness and moral degradation among the people. The question arises, would it not be better to lay off some of the activities of the day, and let the public work out its own salvation?

The daily press "discovers" a laborer's family living hard in the mine section of this state, and proclaims that famine and pestilence is raging in the mountains of West Virginia; while we, who have lived here for many years, can discover only the usual percentage of privation which has been our lot for gen-

erations, and on which we have developed endurance and retarded the expansion of the abdomen. A certain amount of hard times is good for a critter anyway.

Our medical press is getting alarmed because there are signs that the public is getting suspicious of its medical advisors, even while it requires their services more than ever, and on the slightest pretext. Having the doctor in, or trying a little of his medicine, is no longer the historic event in the average family that it once was. The doctor, too, is at fault, with his fussy diagnostic stuff, persistent treatment and added expence in trivial matters. The public employs, yet fears, the specialist and physician, and on slight pretext resorts to the absurd manipulations of the chiropractic, or other cult.

Economic pressure is partly to blame for the armed neutrality that seems to exist between the public and its physical and spiritual advisors. It is the custom to demand all the luxuries and attention, whether the individual is prepared to pay for them or not. They tell us there is a scarcity of physicians in the rural sections. My own observation is there are enough to do the necessary work, if only the public would discriminate between the necessary and unnecessary. At any rate the average man has little trouble in getting the medical attention he needs, or at least all that he is able to pay for.

Then comes the public health service, state health service, and welfare workers. In theory they reform and regulate the race, with an optimism that ignores wind and weather, and all the ills that flesh is heir to. But an unhealthy season comes, or circumstances that seem to be unexplainable, like the outbreak of influenza in the perfectly sanitary army camps during the war, and the old percentage of mortality is right on the job as usual, or a little worse, apparently to make up his due.

I verily believe that if it were possible for our genial director for the suppression of venereal disease, working in conjunction with the doctors, to eradicate the last diplococcus and spirochete in the whole state of West Virginia, and they were to be declared extinct, like some of the prehistoric animals, that some germ of the same nature would evolve again under the grime and filth that exist today and have existed in all ages. Our culture and civilization is, no doubt, doomed to extinction. What good reason can be given that this nation which had its cradle in the forests of North America should not reach a stage of development, and then sink in chaos and oblivion that has been the history of all tribes and nations?

The races of man have moved from one part of the world to another, and as their numbers increased they have devoured every green thing, and over-population has led to extinction; or some neighboring state has envied them their riches, and has invaded and carried them away captive.

Fussy laws, fussy welfare work, and fussy medical attention and diagnosis, will not cure shiftlessness, natural born ignorance, or common laziness. Hard times, if not too hard, will act as a tonic, and some will rise equal to the emer-

gency. Fat and flabby politicians will advocate cure-alls for public evils, all tinctured with gifts from the public treasury and plain graft, but there is no cure except in hard work, and each and all attempting to mind his own business. The desire for luxurious and easy living, so characteristic of the times, (and I might add, particularly so of the female of the species) which is not attained by downright hard work and achievement, can lead to but one end, and that the weakening of the physical and moral fibre of the people. Fundamental rottenness in the scheme of our civilization can not be eradicated or cured by any amount of inspection or welfare work by the government bureaus.

At present, as always, the public is accepting and struggling along with an unlimited amount of bunk, loaded on it by the legislative bodies, ranging from Volsteadism to our State Bureau for Negro Welfare, and I can only wonder when the burdened public will arise and scrap a great mass of this fantastic law stuff.

"We make the laws we flout,
We flout the laws we doubt;
Until we wake the throbbing guns that have
no doubt."

The experience of the Red Cross shows malingering on the part of the public, which asks to be received into hospitals, to have their teeth fixed, for medicines, or a change of climate, and do many other things for them. Nursing the general public deprives the individual of self respect. He no longer tries to look out for himself, or meet his obligations; it paralyzes his energies and ambitions. Social insurance and accident insurance have no brought contentment to the working classes, as promised. It has been demonstrated that the period of recovery and convalescence has been lengthened because the individual lacks the incentive to early recovery. The pension system which follows all wars, and particularly in evidence since the World War, is bad, for it helps to destroy initiative and self-reliance, which otherwise would be much in evidence among the veterans.

Let us discard this flowery bed of ease stuff, and get back to the Pike's Peak or Bust spirit of the pioneers. The load of welfare work and Government bureau activities threatens to paralyze the successful functioning of our Government, and do the public no good at that.

"Then welcome each rebuff
Which makes earth's smoothness rough;
Each sting which bids nor sit nor stand, but
go;
Be our joys three parts pain; strive and endure the strain;
Dare, never grudge the throe."

PROGNOSTIC VALUE OF BLOOD CHEMISTRY IN SURGERY

Read Before the Fayette County Medical Society, Montgomery, W. Va., Oct. 11, 1922.

By J. C. BAUER and R. W. STONEBURNER
Coal Valley Hospital, Montgomery, W. Va.

In the past, the medical profession has been menaced by the practice of destructive surgery. The modern medical profession is demanding and building up a practice of constructive surgery. There is, perhaps, no branch of medicine that is capable of giving more aid to reach this goal than blood chemistry. In the past surgery had many handicaps. One of them, and we

must admit not a small one, was the fact that the surgeon operated, knowing very little of the patient's resistance to operation. All operative resistance was measured entirely by urine analysis. This was not sufficient. A urine analysis is not a dependable measurement of the kidney function. One often finds a blood nitrogen retention and a normal urine. A urine analysis is not a dependable measurement of diabetes. A patient's blood sugar may rise to quite a height and there will be no urinary sugar until the renal threshold point has been reached. And last, a urine analysis is a poor measurement of acidosis, as the hydrogen-ion concentration and the alkali reserve of the blood are quite often seriously affected long before it can be detected in the urine. The surgeon who proceeds to operate after being assured that the blood metabolism is normal, surely takes the smaller risk and a step toward the goal—constructive surgery.

We must first differentiate between the data gathered from a urine analysis and that gathered from a blood analysis. A urine analysis tells us much about the pathology of the kidney, but little concerning the actual grade of kidney function. An estimation of the nitrogenous substances of the blood gives us an exact picture of the grade of kidney function. It is not infrequent that one finds a normal urine, with marked blood nitrogen retention. Due to the fact that these nitrogen compounds are either toxic or a direct index to the toxic condition met in uremia, this condition is, from a surgical standpoint, serious as anesthetics cause kidney changes encouraging nephritis. Bearing in mind these facts we cannot deny that kidney function plays a most important part in the estimation of operative risk. The methods used generally to estimate the kidney function are, simple urine analysis and the phenolsulphonephthalein test. As we have already stated, and shall later show by examples, a urine analysis is not sufficient. The four following patients showed normal urine and high blood nitrogens:

Case No. 3140—March 23, 1922, urine negative for albumen and casts. Blood: Non-protogen nitrogen 48.3 mgm per 100 cc; urea nitrogen 24 mgm per 100 cc.

Case No. 3514—August 10, 1922, Urine negative for albumen and casts. Blood: Non-protogen nitrogen 46.2 mgm. per 100 cc; urea nitrogen 23.8 mgm per 100 cc.

Case No. 3115—March 15, 1922, Urine negative for albumen and casts. Blood: Non-protogen nitrogen 48.3 mgm per 100 cc; urea nitrogen 28 mgm per 100 cc.

Case No. 3469—July 22, 1922, urine negative for albumen and casts. Blood: Non-protogen nitrogen 45.5 mgm per 100 cc; urea nitrogen 24.1 mgm per 100 cc.

In all such cases an operation would be a dangerous proceedure, but usually with proper pre-operative treatment, the patient can be brought to a point where operation, as far as the kidney function is concerned, is safe.

As to the plenolsulphonephthalein test, we must admit that in its day it was of much value, but was never dependable. Does it not seem a somewhat rash theory to say that one can accurately estimate kidney

function by the speed of elimination of a dye stuff? Yes, we all agree that it works, sometimes, but why, no one knows. And we must also agree that often it does not work. This is explained by most observers in this way: the phenolsulphonephthalein test measures the kidney function for the moment. Now this indeed, is a poor measurement of renal function. On the other hand a blood analysis measures the amount of retained nitrogen, and thereby is a direct index to the true, and not the momentary, grade of kidney function. A few illustrations of the point are:

Case No. 3775—Sept. 27, 1977, urea nitrogen 20.3 mgm per 100 cc, non-protogen nitrogen 39.9 mgm per 100 cc; pthalein output for two hours, trace.

Case No. 3775—Sept. 27, 1922, urea nitrogen 39.2 mgm per 100 cc, non-protogen nitrogen 70.7 mgm per 100 cc; pthalein output for two hours, 20%.

Here, although the blood analysis of October 3rd shows an advance of nephritis and points toward an approaching uremia, the phthalein output has improved.

Case No. 3550—August 24, 1922, urea nitrogen 14 mgm per 100 cc, non-protogen nitrogen 28.7 mgm per 100 cc; phthalein output for two hours, 21%.

Here, although the blood picture is normal, the phthalein output is practically the same as in the above patient, having an advanced nephritis.

Case No. 3407—July 1, 1922, urea nitrogen 49 mgm per 100 cc, non-protogen nitrogen 70 mgm per 100 cc; phthalein output for two hours, 40%.

Here, we see an advanced case of nephritis, with the phthalein test pointing to a normal kidney function.

The above examples show us that this is not only an unsatisfactory but a dangerous proceedure, because we are measuring operative risk by an inaccurate and undependable method. To our minds, there is little doubt that in these days of blood chemistry, the phenolsulphonephthalein test should be laid aside and replaced by the more accurate method of blood analysis. In nephritis, the first disturbance in the circulatory system is a retention and naturally a rise in uric acid, next to a rise in urea nitrogen, finally a rise in creatinine. So true is this, that one with such a picture before him can almost invariably give an accurate prognosis.

Sugar

When we come to the question of sugar, we must first discuss the metabolism of the carbohydrates under normal and pathological conditions.

During a meal the carbohydrates are stored in the liver as glycogen, due to an insufficient supply of oxygen. During a period of fasting the glycogen is converted into glucose. This glucose is not burned as such, but decomposes, forming various decomposition products, which are either oxidized in the presence of oxygen, or, in an insufficient supply of oxygen, reduced to fats and metabolic compounds, liberating oxygen to the suffocating tissues. The fats are stored as such for oxidation in the presence of sufficient oxygen. The fatty acids are split into acetic and fatty acids

poorer in carbon by two atoms. The acetic acid is further oxidized to carbonic acid and given off from the body as carbon dioxide and water.

On a strict carbohydrate free diet the body obtains its glucose from the splitting of the proteins and fats by the liver. These compounds are not broken down quantitatively into glucose: among the decomposition products are acetone and diacetic acid. This imperfect protein and fat evolution takes places only in diabetes and anesthesia encourages it. Therefore, to operate on a diabetic is dangerous and must be avoided. Every operative case should be carefully checked from the standpoint of diabetes.

The usual proceedure is a urine analysis but due to the fact that just as we find glucosuria without glycosemia, we also find glycosemia without glycosuria. A few illustrations of glycosemia without glycosuria are:

Case No. 2967—Jan. 19, 1922, urinary sugar, negative; blood sugar, 182 mgm per 100 cc.

Case No. 3074—March 6, 1922, urinary sugar, negative; blood sugar, 208 mgm per 100 cc.

Case No. 3261—May 9, 1922, urinary sugar, negative; blood sugar, 160 mgm per 100 cc.

Case No. 3252—May 9, 1922, urinary sugar, negative; blood sugar, 142 mgm per 100 cc.

This simply means that the urine analysis, although valuable, is not dependable, and should never be taken as final. Every patient, before operation, should be checked further by a careful blood analysis.

The sugar metabolism is indeed a very difficult proposition. There are times when the fasting blood does not give a definite answer to the question of diabetes, but it always offers a suggestion. A case of this type must be attacked and definitely diagnosed by a sugar tolerance test. The patient's blood and urine are taken fasting, and one, two and three hours after glucose. If the sugar metabolism is normal the blood picture will be as follows: First hour, some rise in blood sugar, but the second and third hours will show a blood sugar within normal limits. While on the other hand in abnormal sugar metabolism the first hour will always show quite a rise, sometimes as high as three or four hundred mgm per cent, and the second and third hour specimens show a very slow and gradual return to normal. By this method we may conclusively differentiate between a normal and diabetic patient.

Acidosis

We have already met with one type of acidosis, that gotten in diabetes. We shall now look more deeply into this question of acidosis and find that it has various other causes. We all know that at no stage in life does the blood reach acidity. The term acidosis is used by the medical profession to indicate an approach of the hydrogen-ion concentration of blood to acidity and the breaking down of the alkali reserve. Remembering Crile's well founded theory that acidosis is brought about by brain cell decomposition we shall look into the metabolism during operation. Under both chloroform and ether anesthesia the oxygen supply is practically nil, and these injured brain

cells have no chance of repair. After anesthesia these drugs remain in solution in the lipoid tissues and the acidosis continues. Nitrous Oxid and Oxygen immediately comes forward as the ideal anesthetic. This is carried through the blood stream in loose chemical combination with hemoglobin and in a sufficient supply of oxygen. It is entirely replaced by oxygen and not only does narcosis cease but the entire metabolism returns to normal. Although it is true that the patient under Nitrous Oxid and Oxygen can be carried light and there is always a supply of oxygen available, it also has its disadvantages. Before Nitrous Oxid and Oxygen anesthesia the patient is unusually given a hypodermic of morphine, a drug which hinders the correction of the state of acidosis. The above causes alone would make operation dangerous, but there are others, such as fear, trauma, and hemorrhage, all met with in surgery and all producing an equal degree of acidosis.

Now, how are we going to give the patient a fair chance? We must correct this condition as we do in other diseases which are a menace to surgery, but before one is able to correct any metabolic disturbance one must find it. How may this be done? Will a simple urine analysis suffice? No, we must again come to blood chemistry for aid. In the three following cases showing a carbon dioxide combining power of fifty or below we found no ketonuria. Examples:

Case No. 3409—Feb. 21, 1922, urine negative for acetone and diacetic acid; blood plasma, CO2 combining power 48.9 cc%.

Case No. 3097—March 9, 1922, urine negative for acetone and diacetic acid; blood plasma, CO2 combining power 44.8 cc %.

Case No. 3113—March 15, 1922, urine negative for acetone and diacetic acid; blood plasma, CO2 combining power 48.5 cc %.

Just as in nephritis and diabetes, so in acidosis we find the urine analysis valuable but not dependable. Never should a state of acidosis be ruled out until the patient's blood has been checked either as to the hydrogen-ion concentration or to the carbon dioxide combining power, two very accurate methods of measuring the state of acidosis.

As a general summary there is little to be said concerning the importance of knowing the patient's operative resistance before operation. We also believe we have discussed in detail the three chief divisions, diabetes, acidosis and kidney function, and have shown clearly, we hope, the advantage to be gained by blood chemical analysis over urine analysis. So clear is this point to us, that on entering the surgical service of the Coal Valley Hospital every operative case is studied from the standpoint of kidney function by means of a blood urea nitrogen and non-protogen nitrogen, a creatinine being done only from a prognostic standpoint. From a diabetic standpoint, by a fasting blood sugar, and sometimes a glucose tolerance test; and as to acidosis the patient's clinical symptoms are carefully observed and at the slightest suggestion of acidosis he is checked by means of an estimation of the carbon dioxide combining power of the blood plasma. A complete urinalysis is also made

as a routine proceedure. Our observations of the results of this preoperative check on the patient have been most gratifying. To the extent of almost 100% our patients have run post operative courses marked by strong operative resistance.

We feel that the efforts put forth in this paper are meager compared to those of the medical profession at large to gain the goal—constructive surgery. We hope our efforts have accomplished one thing, that they have shown the members of this Society the importance of blood chemistry in surgery and the gratifying results to be gained from the practice of running surgery and blood chemistry hand in hand.

OUR MODERN CONCEPTION OF AMPUTATION

Read Before the Fayette County Medical Society, Montgomery, W. Va., Oct. 11, 1922.

By ROBERT KING BUFORD, Ph. G., M. D.
Charleston, W. Va.

We have seen the passing of the amputating specialist. He has been replaced by the reconstruction surgeon, however, those of us who do industrial and railway surgery are still having to do occasional amputations. Amputations are happily less frequently performed than when they were formerly considered the major operation of the pioneer surgeon. The percentage of amputations for fractures of the thigh in the Crimean War was 93½ per cent; Civil War, 63 per cent; Franco-Prussian, 75 per cent, and Russo-Turkish war, 80 per cent. The fact that there are about 500,000 amputations resulting from the past World War has brought the subject of artificial limbs to our most urgent attention. It seems permissable, therefore, to call attention to those points in the technique of amputation, which have a direct bearing on the fitting and wearing of a substitute.

The Inter-Allied Surgical Conference adopted the following conclusions and recommendations:

1. Amputation is indicated only where conservation of the limb would lead to death of the patient or where eventually loss of life is inevitable.

2. General indications for amputations are (a) extent of the injury, (b) infection.

3. Amputations for infections are always the more dangerous. French Statistics of 29139 amputations show that the general mortality of 6 per cent is elevated to 28 per cent in case of infection. Again, a review of 3633, disarticulation averages the same result.

4. Amputations of the upper extremity are less frequently indicated than those of the lower. This depends upon the fact that in the upper extremities serious infections are less frequent. Resections are followed by more favorable results and the prospects offered by the prosthesis are more unsatisfactory to both surgeon and patient.

5. Indications for primary amputations are found in the nature and extent of the injury, pulverization, crushing, partial avulsion of the limb and especially rupture of the main blood vessels.

6. Amputations are most often indicated in cases of chronic infection, cachexia, which does not re-

spond to any form of treatment. Primary amputations, or those delayed for twenty-four or forty-eight hours should, as far as possible, be made to correspond with the site of the fracture, the soft parts being simply divided, and bone trimmed or rounded off, if necessary.

In civil practice, amputations are indicated sometimes in intractable diseases, such as ulcers, disease of bone, elephantiasis and snake bite in which the interest of the patient is served by saving of time and by cure of the disease by amputation. Incurable paralysis of all the muscles of the limb in cases in which a useful prosthetic apparatus can be substituted for the paralyzed limb, which is an undesirable appendage, supernumerary members, gangrene, gas baccillus infection which we are learning is not an infrequent occurance in civil practice.

The question of when to amputate, at what point it should be done, what type of amputation should be chosen, and whether the incision can with safety be closed are matters of the most vital importance to the patient and also determining whether this after-care and the fitting of the artificial limb are to be easy or difficult. The importance of securing an endbearing stump in the lower extremity should be more generally recognized. Artificial legs are designed by the makers to take the weight on the ischial tuberosity when the amputation is above the knee and on the tuberosity of the tibia when it is below the knee, and usually no attempt at endbearing is made. The transference of even a part of the weight to the end of the stump will conduce to improve function and greater comfort. Formerly, amputations were done at the lowest possible level to conserve as much limb as possible. Through better cooperation of the surgeon and artificial limb maker we have learned that it is sometimes better to amputate a higher level in order to secure endbearing and consequently a more useful artificial limb. Endbearing depends upon a good stump and early functional use. The scar should be so placed that it will not be exposed to pressure. The soft parts are severed long enough to be thoroughly movable over the bone. Muscles and fascia are preferably sutured over the end of the bone. The nerves should be drawn down strongly out of the sheath, injected with absolute alcohol, and an inch or more removed below injection. Injection of the nerves with alcohol has eliminated painful neuromas and hypersensative stumps. The periosteum and the bone should be divided in the same plane and care taken to remove any periostial shreads present, leaving the bone smooth and rounded.

The thumb or a part of the thumb, together with some portion of fingers is more useful than any artificial contrivance with which it can be fitted. Irregular operations in this region, such as trimming, removing splinter of bones and sequestra, are likely to give better functional results than any set amputation. In the wrist there is some advantage in disarticulation on account of better preservation of the forces of pro-and supination which are now used to activate the artificial hand.

Amputation in the lower part of the middle third in the forearm

gives a good and useful stump. However, the circulation of stump in the lower third is often poor. Union of the ends of the bone by osseous or fibrous adhesions, should be guarded against. When the elbow is approached, it is important to save as much bone as possible. If it is not possible to get a forearm stump extending at least an inch and a half below the insertion of the biceps, amputation above the condyles of the humerus is to be preferred. The lowest point in the upper arm at which amputation is desirable is just above the condyles. From this, the longer the stump the better. Above the middle of the humerus, every surgical expedient should be utilized to save all the length possible. Skin grafting may be employed to cover defects rather than re-amputation. Disarticulation at the shoulder joint should never be done when it is possible to save even the head of the humerus. The artificial appliance is fitted more easily when the glenoid cavity is filled.

In the foot it is undesirable to save a single toe. The Lisfranc amputation, or disarticulation at the tarsal or metatarsal junction with long plantar flaps gives a foot that is quite satisfactory for weight bearing. The Chopart amputation or disarticulation through the mid-tarsa region has proved very unsatisfactory in my experience and I have abandoned it entirely. The muscle balance of the foot is destroyed, the heel draws up, and the foot rolls inward, producing a position of equinovarus. The weight is borne directly on the inward angle of the stump. The disability is commonly greater than amputation through the middle of the leg. Pirogoff amputation is a modification of the Syme, and consists of the amputation of the leg just above the malleoli with preservation of a long plantar flap and implantation of the posterior portion of the oscalsis on the ends of the cut bones. Non-union of the transplanted portion of bone occurs in a large percentage of cases, with resulting failure. Syme's supra malleoli amputation is to be preferred. This operation provides a stump capable of endbearing of the entire body weight. It is less crippling than the common amputation of the leg. It removes only the foot, leaving a stump of the greatest leverage power. The success of the Syme amputation depends upon (1) skin covering the bottom of the heel must be healthy and undamaged; (2) acute sepsis, foul sinuses neighboring the operative field must be absent in order to prevent contamination of the wound. In wound infection this operation is contraindicated. The middle third of the leg is generally considered the most favorable site. Many artificial limb makers prefer amputation at this site to any amputation back of the toes. Endbearing can be secured by proper surgical care and with a good modern artificial limb the gait will be perfectly normal. The fibula should always be cut an inch shorter than the tibia and the sharp point of the tibia excised.

The Aperiosteal method is to be preferred. The poor circulation in the lower third makes the middle third the preferable site for amputation. Poor leverage is obtained in short stumps of the upper third. However, fair results have been ob-

tained with two inches of tibia. A stump as short as this is usually unadvisable. In amputations of the upper third of the tibia I find a better stump can be obtained by excising the entire fibula. The old site of election four inches below the knee was intended to produce a direct weight bearing stump. The advent of the artificial limb has eliminated this old conception.

The best amputation in the thigh is one just above the condyle. My experience with Gritti-Stokes amputation has been very unhappy. Theoretically this proceedure seems logical, however, if any infection is present the amputation is usually a failure. Above the condyles all the length possible should be saved, as endbearing decreases rapidly as the upper limit of useful leverage is approached. A stump in which the bone is less than three inches is of little value and disarticulation is preferable.

After the wound has healed we have adopted the following routine treatment of stumps, modified from Hirsch while the patient is still confined to bed. First, the stump is massaged ten minutes daily, carefully, redressed with a cotton dressing, and bandaged snugly in place. The patient is directed to place the end of the stump against a cushion or pillow, pressure being made at first several minutes three times a day, gradually increasing up to five or ten minutes every two hours, and then one hour. Following each pressure exercise, active movements of the stump are made in all directions to the full limit of joint motion from three to five minutes. Absorption is hastened and circulation is improved by hot packs or electric light baths. When the patient is able to leave the bed, direct weight bearing is begun on the stump. Graduated exercises of endbearing on a mattress or stool until the stump will support the entire body weight. The patient may then begin to hammer on a stool with the end of the stump in imitation of the pounding which takes place in walking with an artificial limp provided for endbearing. As soon as the patient can stand alone the crutches are discarded and a temporary artificial limb applied.

THE MANAGEMENT OF HYPERTENSION

Read Before the Fayette County Medical Society, Oct. 11, 1922.

By WM. B. PORTER, M. D.
Roanoke, Va.

One is safe in saying that there is no condition which gives those engaged in all branches of medicine more genuine concern than that which is designated "high blood pressure." It is my opinion that this is one of the most serious problems confronting the physician of today. From an economic standpoint it occupies a most important position. The degenerative changes of the cardio-vascular-renal systems associated with hypertensive states rank next to tuberculosis as a cause of death in the United States, and as a cause of early decadence takes precedence over all other diseases.

The use of the blood pressure apparatus became universal about 1907. Since that time we have passed through varying states of reasoning and at times, I may say,

states of no reasoning. We have not progressed much beyond the time-worn belief that the increase in systolic pressure is directly dependent on the output of the left ventricle, and the diastolic pressure is controlled by the peripheral resistance, the latter state due to vasoconstriction induced primarily through the central nervous system.

With the introduction of a more accurate method of blood pressure estimation, i.e., the auscultatory method, the variations in diastolic pressure began to attract attention. Today there are those who are inclined to ignore the systolic pressure and only recognize the existence of hypertension in the presence of an elevated diastolic reading. This is not warranted by any known facts, for frequently such cases in a few years or months will have passed into a stage with elevated diastolic pressure also.

Beyond the general ideas laid down above, we are still groping in a mystic maze of uncertainty as far as any accurate knowledge of the basic etiological factors operating in the causation of elevated blood-pressure. We know that the condition is usually associated with changes in the heart, the vascular apparatus, and the kidneys and that clinically the cases divide themselves into those with predominating cardio-vascular phenomena, and those with predominating renal phenomena.

In the cardio-vascular group we usually note a considerable disproportion between the systolic and the diastolic pressures, the diastolic pressure remaining relatively low, with a consequent high pulse pressure. In the renal group the diastolic pressure is proportionately high, and as a rule increases as the amount of renal impairment progresses. Yet such a division is not complete and is in a way misleading for we frequently see one type merge into another. In the cardio-vascular group are placed the cases of essential or so-called "benign" hypertension and the hypertensive states associated with the menopause. Yet it is not unusual to find such cases classified at a later date as malignant hypertension with symptoms of marked renal impairment playing the premier role. I have personally followed such cases through the course of their development.

It might seem that the management of any disease in which the etiological factors operating were not definitely understood would be an almost hopeless task, yet I do not think such a conclusion is justified. We know from an experimental standpoint that the most positive results in the production of degenerative changes in the cardio-vascular-renal systems have been obtained by feeding a diet rich in proteins. From a physiological standpoint we know that the most important function of the kidney is the elimination of salt and the by-products of protein catabolism, i.e., urea and uric acid. In the terminal states of chronic nephritis the function of urea and acid elimination is markedly impaired. The ascertainment of the degree of retention of these substances in the blood is the most important functional test we possess for estimating renal damage. It seems reasonable, therefore, to assume that there is a stage in the cycle of the

hypertensive case in which there is no evident impairment in renal function, yet it may be true that at that moment the kidney is using all of its reserve power to "carry on."

With these facts before us I feel that we have at least a few salient principles to guide us in the management of our hypertensive cases.

The prognosis in the advanced states of these degenerative diseases is an utterly unhappy one. At best we can hope only to postpone a fatal termination, either resulting from cardiac failure, cerebral thrombosis, or renal decompensation with a consequent uremia. It behooves us therefore to recognize the early states or symptomless cases and advise them accurately, sanely and positively. The majority of such cases are over-weight but be they willow-wands or comfortably tub-shaped, I feel that the most important single factor in the management of the hypertensive states is the regulation of the diet so that a minimum of protein food is ingested, and in most instances a considerable reduction of the total caloric intake. This appears to me to be a logical procedure, and if this reduction is persisted in, not for weeks, but months and even years, the progress of many cases is stopped permanently.

Much has been said recently about the restriction of the salt intake. It has not been my good fortune to see much damage in the blood pressure curve when this food element was eliminated, unless it were in conjunction with other food restrictions. Yet salt restriction in moderation is logical.

It behooves us to use to the fullest extent that old, but often forgotten, principle of rest when we are treating the disturbed function of any diseased organ. It is my belief that the importance of diet as a therapeutic measure cannot be overestimated, and in conjunction with this, exercise, moderate and of a type that is in the form of a diverting recreation, "Absolute rest and exercise" as O. Henry so aptly describes it in his classical study of a neurasthenic "Feel My Pulse."

A good deal has been said with regard to the relation of foci of infection to hypertensive disease. While there is not a vestige of evidence pointing to a causal relation of infections to hypertension, yet on the other hand, foci of infection should not be ignored. They may predispose to vascular and renal degeneration and they are obstacles to the return of full health. From this point of view, then, infections, of whatever origin, should be given every possible attention.

It would appear that there is a standing order more or less consistently obeyed that any person with a hypertension must receive magnesium sulphate as a saline cathartic. This seems to me to be a pernicious practice with potential possibilities of real harm. The magnetism salts are marked depressants to the neuro-muscular systems. This is particularly well illustrated by the great muscular relaxation in tetanus produced when a solution of magnesium sulphate is either injected subcutaneously or intraspinally. In those cases with renal impairment there is a definite tendency for the magnesium radical to accumulate in the tissues of the body. We have all seen the marked weakness and prostration in pa-

tients who have been using this cathartic for any protracted period. I have seen cases in whom I felt it was definitely responsible for a myocardial break. Any of the vegetable laxatives will accomplish the same eliminatnig effects without any of the consequent depression of the neuro-muscular systems.

No drugs have been mentioned because I feel that in the early uncomplicated cases we possess no pharmaceutical preparations which will favorably influence such patients. In the late cases our remedies are directed as the symptoms dictate.

The same general principles should guide us in the hypertensive cases with heart failure, which we are accustomed to follow in the decompensated hearts without hypertension. Digitalis is always indicated if there is a fibrillating auricle with a pulsus deficit. It not infrequently favorably influences the cases with sinus control. Rest, not only physical, but metabolic, is induced by restricting the food intake to a minimum, and restricting the water to a point below the renal output. If there are any congestive phenomena we cannot expect the glomeruli to excrete an excessive water intake when we appreciate the fact that renal function is largely dependent upon the speed of flow in the capillary field of the renal cortex. Diuretin given in conjunction with digitalis in the congestive forms of heart failure favorably influences the restoration of renal function. It is not my practice to use either nitroglycerine or any of the nitrites except as symptomatic remedies in the presence of angina pectoris.

In the management of the cases with marked renal impairment only temporary reduction of catabolic toxemia can be hoped for. Restriction of the diet to carbohydrates with a minimum intake of fats and vegetable proteins is the most direct therapeutic measure we possess. The ingestion of large amounts of water tends to dilute the toxemia and to promote elimination. Sweat baths can do nothing more than concentrate the toxemia, since the skin is only capable of eliminating carbon-dioxid, water and salt. I have personally observed an increase of 10 mgm. per 100 c.c. of urea nitrogen following a hot pack. One can only conclude that they are to be avoided. A daily warm bath with a stiff brush is not only refreshing but tends to improve capillary circulation and promote vaso-dilatation.

Lumbar puncture frequently relieves headache, especially in those cases who tend to have cortical irritational phenomena such as muscular twinges and convulsions. Such patients should be reviewed broadly and our therapeutic efforts directed at the long standing chronic intoxication.

In conclusion: 1. The degenerative diseases involving the cardiovascular apparatus rank next to tuberculosis as a cause of death in the United States, and as a cause of early decadence they take precedence over all other diseases.

2. It is to be commended that the modern studies in diseases of the cardio-vascular-renal systems have been largely along the line of disturbed function. The newly acquired knowledge is not only an aid to diagnosis but forms a log-

ical basis for treatment.

3. The depressing effects of the magnesium salts on the neuro-muscular systems have been noted. The tendency to accumulate in the tissues in cases with impaired renal function makes them contra-indicated in the hypertensive diseases.

4. It behooves us to be consistently on the lookout for the symptomless cases of hypertension. It is probable that the progress of many of the early cases can be entirely arrested. Sane dietectic restrictions, together with systematic recreation and moderate exercise, are of paramount importance.

ANNOUNCEMENTS AND COMMUNCATIONS

Charleston, W. Va.,
November 29, 1922.

Dear Doctor:

A canvass of the profession of this city reveals that less than 5% of its members are equipped to make dark field examinations. Accepting this figure as a fair index for the profession of the State, the inference is permissible that a surprisingly small number of physicians use the dark field or realize that it is a necessity for obtaining accurate conclusions in the study of genital lesions.

As practically all physicians are treating syphilis and attempting the differential diagnosis of the several venereal lesions unaided by the dark field, it is readily appreciated that diagnoses thus made are based largely upon guess work rather than upon scientific investigation. Physical characteristics of these lesions, their period of incubation, their number, are very frequently misleading points. To attempt to make a differential diagnosis of a sore by inspection alone, to pronounce it chancroid, chancre, herpes or trauma is a grievous injustice to the patient and certainly reflects no credit upon the individual physician or the profession.

It cannot be too strongly emphasized that the accurate determination of the nature of venereal sores can only be arrived at after one or more dark field examinations. Failure to conduct such examinations routinely can only result in a large percentage of errors.

The enclosed observations bearing on the diagnosis of early syphilis may be entlrely familiar to you. It is felt, however, that there are many practitioners of medicine who will find real "news" in the reading of these abstracts recently given out by the U. S. Public Health Service, Division of Venereal Diseases.

Very truly yours,
WILLIAM S. ROBERTSON,
A. A. Surgeon, U. S. P. H. S.,
Director, Bureau Venereal Diseases,
State Department of Health.

DIAGNOSIS OF EARLY SIPHILIS

From the Section on Dermatology and Syphilology Mayo Clinic and the Mayo Foundation

A study of 231 cases of early syphilis, largely untreated, yields the following observations bearing on the diagnosis of early stages of the disease:

1. The diagnosis of early syphilis has become a laboratory problem, divided between the dark field examination and the Wassermann reaction. Clinical criteria, while interesting, have lost most of their final diagnostic value. The primary stage especially, should no longer be overemphasized in teaching.

2. The dark field examination showed 55 to 65 per cent of all genital lesions to be chancres outright.

3. In our consecutive series, irrespective of age, 66 per cent yielded positive dark fields; 80 per cent were positive the first week and none were positive after the ninth week.

4. Seventy per cent of the Wassermann tests made in the second week of the chancre were positive.

5. The dark field detected spirochete pallida in twenty-three of the twenty-four moist secondary lesions, and in five of seven Wassermann negative, early, or recurrent secondary cases.

6. The dark-field on treated primary lesions is not hopeless. Eleven of seventeen cases yielded positives. Nonetheless the withholding of treatment until after repeated negative dark field examinations needs to be vigorously preached.

7. Glandular aspiration of the satellite bubo of the chancre with dark field examination of the serum yields 50 per cent positives.

8. Of eighty patients who previously had seen physicians we found that only three had had dark field examinations, one army man, one navy man, and one civilian.

9. The practitioner's margin of error in diagnosis was 30 per cent. In 24 per cent, treatment of some kind had been instituted while no diagnosis had been given the patient.

10. "Chancroid" is still the chief diagnostic pitfall. The attitude that every genital lesion is potentially a chancre until proved otherwise is the safest for public and patient. Diagnosis of chancroid should not be made until four months after the appearance of the lesion and following repeated negative Wassermann tests. "Cancer," "tumor," "herpes," "felon" are the masquerades of extra-genital chancres.

11. One patient had been used as a transfusion donor before coming to the clinic, while he had a chancre, and was at the height of his spirochetemia, and ten days before his secondary eruption appeared. The physician who used him as a donor had evidently made no inquiry into his condition.

12. The Wassermann test in our secondary cases yielded the following: 92 per cent positive in treated and untreated; 95.7 per cent positive in those with slight treatment, 98.5 per cent positive in those without treatment.

13. We believe the repeated positive Wassermann test in secondary syphilis is a safer guide for the inexperienced than the characteristics of the eruption. If it is negative, the dark field or the combination of findings may make the diagnosis.

In the aggregate 24 per cent of patients with florid secondary syphilis, a high percentage could give no history of chancre, even though their secondaries were fully developed. This included a physician with secondaries, but no sign of a primary lesion (needle prick?).

15. Women are especially apt to give no sign of a primary lesion (concealed, short duration, and so forth).

16. Macular eruptions preponderate in our secondary cases. This we believe is an effect of special attention to lighting on our part, and is of great importance where inspection is used as a clue to syphilis as in industrial and military hygiene.

17. More than half of our patients had infectious lesions when seen (68 per cent). More women than men had infectious lesions (75 per cent in contrast to 64 per cent), which makes them even more effective carriers than men. In this we are in accord with Fournier.

18. Half our patients had constitutional symptoms with secondary irruptions; much fewer in the preruptive stage (four in twenty-eight).

19. Women show a markedly greater tendency to constitutional symptoms than men (63 per cent in contrast to 43 per cent). In this also we are in accord with Fournier.

20. The leading constitutional symptoms are sore throat (53 per cent), headache and head pain (31 per cent).

21. Combinations of mild fever, sweats, loss of weight, asthenia, gastro-intestinal symptoms, nervous irritability, arthritic and myalgic pains with anemia are frequent and are easily confused with early tuberculosis. They justify a routine Wassermann test when tuberculosis is suspected, especially in early adult and middle life.

22. Myalgia, arthralgia, and bone pain are easily confused with "rheumatism." The traditional nocturnal character is not a safe guide to syphilis and is often absent. (John H. Stokes and Albert R. McFarland, American Journal of Syphilis, July, 1922.)

New Haven, Conn.,
November 24, 1922.

Dr. James R. Bloss, Editor,
West Virginia Medical Journal,
Huntington, W. Va.

The undersigned is desirous of obtaining information regarding the prevalence of Infectious Jaundice in your State.

The disease is non-reportable and information regarding its prevalence cannot therefore be obtained from Boards of Health. I shall be grateful for any reports of outbreaks which your readers may care to send me.

GEORGE BLUMER, M. D.
195 Church Street,
New Haven, Conn.

Rochester, Minn.,
December 7, 1922.

West Virginia Medical Journal,
Huntington, West Virginia.

To the Editor:

The enclosed letter has been published in the Journal of the American Medical Association and has resulted in bringing me many replies. I am anxious to reach as many members of the profession as possible on this subject and would appreciate it very much if you would publish my letter in your crorespondence column.

Yours very truly,
A. H. SANFORD, M. D.

December 7, 1922.

To the Editor:—I am endeavoring to make a complete study of the distribution of human actinomycosis in this country. The number of cases reported in the literature is surprisingly small, and I know that the disease is not so rare as is sometimes thought. I shall greatly appreciate hearing directly from any one who has had experience with this disease, and desire to know concerning case histories the following: age, sex, occupation, residence, state in which the disease was contracted, location of lesion, duration

of symptoms, and any special points of interest connected with the treatment, outcome of the disease, or necropsy findings.

A. H. SANFORD, M. D.,
Mayo Clinic,
Rochester, Minn.

November 22, 1922.

James R. Bloss, Editor,
West Virginia Medical Journal,
Huntington, W. Va.

Dear Sir: Will you be kind enough to publish the following announcement in your Journal at your earliest opportunity?

The National Board of Medical Examiners announces the following for its next examinations:

Part I: February 12, 13 and 14, 1923.

Part II: February 15th and 16th, 1923.

The fees for these examinations have been continued at the reduced rate for another year. Applications for these examinations must be forwarded not later than January 1, 1923. Application blanks and circulars of information may be obtained from the Secretary of the National Board, Dr. J. S. Rodman, Medical Arts Building, Philadelphia, Pa.

Thanking you for your cooperation in this matter, I remain,

Sincerely yours,
J. S. RODMAN,
Secretary.

December 29, 1922.

To All Traffic Officers:

On account of the delay in securing power for our license Plate Factory and the delay in shipment of the first car of plates, we are extending the time and permitting the use of 1922 plates until January 15, 1923.

All West Virginia cars displaying 1922 plates will be recognized until the above date.

On account of the recent destruction by fire of the Ohio License Plate Factory, all Ohio cars bearing 1922 license plates will be recognized until February 1, 1923.

STATE ROAD COMMISSION,
C. E. Hiner, Commissioner.

Charleston, W. Va.,
December 15, 1922.

To All Officers Interested in the Enforcement of the Automobile Laws:

We desire to call your attention to the West Virginia laws relating tc motor vehicles, especially to section 87, chapter 112, Acts of the Regular Session of 1921.

No person shall operate or permit to be operated on any road or highway in this state a vehicle unless he shall display or cause to be displayed thereon the registration plate or plates of such vehicle, as in this act provided. No person shall operate or permit to be operated a vehicle registered in this state upon which there is displayed the registration plate of another state, or a fictitious registration plate, or the plate of another vehicle, or the plate of a previous owner of the same vehicle; provided, however, that in the event of the sale of a vehicle the person purchasing the same may for a period of not more than five days operate such vehicle under the registration of its previous owner and display the registration plate thereof; provided, further, that he shall have and display on the demand of any proper officer the consent in writing of such previous owner so

to use such registration. Any person violating any provision of this section shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished with a fine of not less than ten dollars, nor more than fifty dollars.

Every person who operates a motor vehicle is required to have in his or her possession either an operator's certificate or chauffeur's certificate and badge, and on demand of the proper authorities to present such certificate of registration; provided, no person under fourteen years of age shall operate his or her father or mother or owner of such vehicle; provided, further, that any person over fourteen years of age receiving instructions in use of a motor vehicle may operate such vehicle, when accompanied by a licensed operator or chauffeur, for a period not to exceed three months.

This provision of the law is being ignored in many instances, and the public safety jeopardized. Children under the age prescribed by law are operating cars, with no knowledge of or regard for traffic rules; are exceeding speed limit; passing traction cars while discharging and receiving passengers; and violating the law in numerous other ways.

Thousands of people are operating cars without operators' licenses. The present law was inaugurated to promote the public safety of pedestrians and those persons who are operating their vehicles in accordance with the law.

Civil officers are asked to cooperate and see that all operators have complied with the law, especially as to registration and dsiplaying proper evidence of the same.

Very truly yours,
STATE ROAD COMMISSION,
C. E. Hiner, Commissioner.

TREATMENT OF DIPHTHERIA CARRIERS BY MEANS OF THE ROENTGEN RAY. Preston M. Hickey, M.D., Am. J. Roentgenol. 9:319, May, 1922.

The writer states that "bacterilogical examinations show that the percentage of cures in a selected number of throat cases is greater by the roentgen-ray treatment than by the local antiseptic treatment. The roentgen-ray treatment of diphtheria carriers is more easily carried out than a local treatment of the throat requiring swabbing of the pharnyx, and is very much less dreaded than the operative procedure of tonsillectomy."

Since the above paper was written unofficial reports have been received which claim that the use of the roentgen rays have resulted in the disappearance of the bacilli from the pharnyx within a few days after the treatment. An official report will be made with regard to these cases as soon as the data can be collected.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

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W. E. VEST
- Assistant Editors

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

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The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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VITAL STATISTICS IN WEST VIRGINIA

To the observant physician in this state, the manner in which our vital statistics are reported must bring a sensation of shame. We now have the Model Law, yet our reporting is so poor we are denied admission to the Registration Area by the Federal authorities. The remedy for this situation lies with each individual doctor. The record of vital statistics constitutes the state's ledger of life and death—the profit and loss account of population. The proper entries in this ledger are a duty we owe to ourselves, our individual patients, our state and nation, and to posterity. May one of our unbroken New Year resolutions be to report promptly our vital statistics.—W. E. V.

DR. ROBERT HALL PEPPER

Was born at Mayslick, Kentucky, February 12, 1862, the son of William and Elizabeth Hall Pepper. He graduated at the Cleveland University of Medicine and Surgery in 1885. On June 28, 1887, he was

married to Miss Ella Martin, of Maysville, Kentucky, and the same year located in Huntington. In years of service he was the second oldest practicing physician in Huntington.

Early in 1922 he was found to be suffering from a hypernephroma and went to the Mayo Clinic for its removal. For a time he was much improved, but a cranial metastasis appeared and after a lingering illness he died on December 23rd.

Dr. Pepper had for years limited his work to roentgenology and was a past master of his specialty. He was a faithful friend, a genial companion, and very popular with both laity and profession. For several years he was Secretary of the Cabell County Medical Society. The profession of Huntington feels keenly his loss.—W. E. V.

RESOLUTIONS

At this season of the year it is the usual procedure to determine on a lot of good things to do, and how we are going to be better and accomplish more, and so on and so on.

There is much desired to be accomplished by the medical profession of our State, and it is to be hoped that we will not only "resolute," but will then keep working to bring about the fulfillment of our determination.

In the first place there is the meeting of the Legislature in February, before which the question of the Medical Department of the University will come up. It is to be hoped that the State Association will stand behind this movement as an undivided body. It is true that it may not meet with the individual approval of some of our members. Neither did the American Revolution, the War of 1812, the Civil War, the one with Spain, or the World War meet with the approval of all the citizens of this country, yet because of the support given by the loyal Americans, and by the grace of God, because the American cause was just the outcome has been as it should be.

Then again comes the Vital Statistics Law, which Vest has called attention to. In this respect it is to be feared, if we are to accept our State Health Commissioner's statements, that too many of us are remiss in our duties as physicians and good citizens, in complying with the requirements of the Medical Practice Act. Will it be too much of a drain on our "Resolution System" to report all the diseases required during the coming year, together with the regular certificates of births and deaths?

There are but two things, and it seems that they would not be difficult to accomplish.

Again it gives me pleasure, as your Editor, to wish you through the columns of your Journal, a most HAPPY and SUCCESSFUL year's work during 1923.

GOOD ROADS

No one class of our citizens, except the farmers, can have a greater interest in this matter than do the physicians.

The plan of the Chamber of Commerce of Williamson seems to be as equitable a one as is possible in the way of taxation for this purpose.

Think it over and talk to your members of the Legislature in regard to it.

December 12th, 1922.

RESOLVED: FIRST: That the Williamson Chamber of Commerce favors the adoption of an enabling act by the West Virginia Legislature at its session to be held beginning in January, 1923, authorizing the immediate issue and sale of at least fifteen million dollars additional of the road bonds of the state, authorized by the Constitutional Amendment adopted in 1920; and the making forthwith available the moneys arising from the sale of such bonds for the improvement and maintenance of the highways of the state; and that as additional revenue for carrying and retiring such road bonds we favor statutory enactment which will impose a tax of one cent the gallon on gasoline sold within the state; and

SECOND: That we pledge our earnest and vigorous efforts, individually and collectively, about procuring such legislation; and

THIRD: That a copy of these resolutions be, by the Secretary of this Chamber, forthwith furnished to (a) Each Chamber of Commerce and Board of Trade in the state, (b) Each member of the State Legislature, (c) The press of the state.

WELCOME ! ! !

On page 1932 of the December 2 issue of the Journal of the American Medical Association appears the long awaited announcement of the early appearance of a medical magazine for lay readers. Authorized by the 1922 House of Delegates and published by the Board of Trustees of the American Medical Association, this monthly magazine will be devoted to the development of individual and community health, based on the accumulated experience of generations of medical scientists in sickness prevention. In physical make-up the magazine will rival Scribner's; in literary excellence, the Atlantic Monthly. The world's best writers, both scientific and popular, will strive to present their discussions in brief and simple terms.

Many of us have dreamed for years of an opportunity to create for the mind of our intelligent public a medium for authoritative information on the altruistic phases of medical practice. OUR opportunity apparently is at hand. OUR organization, thoroughly democratic, creates this new magazine, and its initial success will depend on OUR contributions to its debut. On advertising page 17 of the December 2 Journal, appears a special one dollar subscription open to Fellows of the Association. We trust that our members will promptly take advantage of this limited offer.

Let us prepare a warm welcome for "Hygeia," a Journal of Individual and Community Health, founded and published by the American Medical Association.

COUNTY SOCIETY REPORTS

CABELL COUNTY

December 14, 1922.

Meeting called to order by the president at 8:30 p. m. in the assembly hall at the Frederick Hotel. A motion made by Dr. Marple was passed, changing the order of business. And a very excellent paper on nephrolithiasis was presented by Dr. J. E. Rader. Lantern slides illustrated the chief points of interest. Discussion of the paper followed by Drs. Hatfield, Hubbard,

Belcher, Matthews and Bobbitt.

The business of the evening consisted in the electing of officers for the new year. For president, Dr. Guthrie nominated Dr. Wilkinson. Dr. Yost nominated Dr. Swezey. Dr. Biern moved nominations be closed. The vote by ballot gave Dr. Wilkinson 24, Dr. Swezey 12. Drs. Hunter, Biern, Lyons and Hodges were the appointed tellers.

For Vice-president Dr. Vinson nominated Dr. Swezey. A motion by Dr. Biern to close the nominations and have the secretary cast the unanimous vote of the society, was carried.

For treasurer Dr. Vinson nominated Dr. Fitch. Dr. Biern nominated Dr. Bobbitt. Dr. Kessler moved the nominations be closed. After the tellers had called something over half the votes a motion by Dr. Taylor that the count cease and Dr. Bobbitt be declared elected was passed.

For secretary, Dr. Vinson nominated Dr. Swann. Dr. Ruddemann nominated Dr. Biern. Dr. Belcher moved the nominations be closed. During the count Dr. Vinson requested to withdraw his candidate, declaring Dr. Biern elected.

The place of Dr. Pepper, retiring censor, was filled by Dr. T. W. Moore, who was nominated by Dr. Vest and a motion by Dr. Hodges that the nominations be closed and the secretary cast the unanimous vote of the society.

It was moved by Dr. Hodges that the secretary be thanked for the year's work. Dr. Biern amended, all the officers to be thanked. Motion passed.

Appointing of delegates to the coming state meeting was deferred.

A bill presented for $59.75 owed to Marcum & Marcum for the incorporating of the society was moved paid by Dr. Swezey, seconded by Dr. Hatfield. Motion passed.

It was moved by Dr. Hubbard, seconded by Dr. Hunter that some flowers be sent to Dr. Pepper. Passed.

Dr. Rader moved we give a vote of thanks to Mr. Lon Hutchinson for the efficient operation of the lantern and slides. Passed.

Adjourned.

Members present were: Drs. Vest, Bobbitt, C. T. Taylor, I. W. Taylor, Mackenzie, Hodges, Cronin, Hunter, Pryor, Wilkinson, Ruddemann, Swezey, Pritchard, Rose, Rader, Matthews, Belcher, J. A. Guthrie, Yost, Marple, Hubbard, Jones, Vinson, Beckner, Biern, Howard, A. K. Kessler, J. C. Kessler, Hatfield, Willis, Moore, Gerlach, Lyon, Hume, Swann, Bloss, Adkins.

W. C. SWANN, M. D., Sec'y.

Dec. 28th.

The regular meeting of the Cabell County Medical Society was called to order in the Hotel Frederick at 8:30 p. m., December 28th, by the president, Dr. Bloss.

Members present: Drs. A. K. Kessler, Watts, Swezey, Yost, Willis, Beckner, Radner and Bloss.

On motion of Dr. A. K. Kessler the reading of the minutes of the previous meeting was dispensed with. There being no unfinished business to be presented to the Society, or new business, the President appointed a Committee to draft resolutions on the death of our fellow-member Dr. R. H. Pepper. This committee consists of Drs. Wells, chairman, Watts, and Kessler.

There being no further business

before the Society, adjourned on the motion of Dr. Wells, to meet on the evening of the second Thursday of January, in the Hotel Frederick.

EASTERN PANHANDLE

December 18th, 1922.

James R. Bloss, Editor,
W. Va. State Medical Journal,
Huntington, W. Va.

The regular meeting of the Eastern Panhandle Medical Society was held in Martinsburg, December 13. Two very interesting papers were read. One, "Wounds Infected by Gas Bacillis," by Dr. James R. Duff. The other, presentation of a case of "Brain Tumor," by Dr. W. A. Wallace. The papers were discussed by Drs. Oates, Porterfield, Eagle, Osborne and Morison. After the reading of the papers and discussion, the following officers were elected for 1923: Dr. William Neill, of Charles Town, president; Dr. Howard Osborne, of Rippon, vice-president; Dr. M. H. Porterfield, of Martinsburg, secretary - treasurer. Drs. Oates, Miller and Eagle were elected censors. The meeting then adjourned to meet again in March.

G. P. MORISON, Secy. Treas.

FAYETTE COUNTY

December 13, 1922.

Dr. J. R. Bloss, Editor,
West Virginia Medical Journal,
Huntington, W. Va.

The Fayette County Medical Society met at the Y. M. C. A. at Mount Hope, on Tuesday night, December 12, 1922, with the following members present: Drs. Hopkins, Skagg, Evans, Smith, Adair, Hunter, Walkup, Bruce, Grose, Goodman, Hodges, Price, Baker and Anderson.

The Society was called to order by the president, Dr. S. W. Price, and Dr. E. J. Grose read a very interesting paper on the treatment of pneumonia, which was discussed by every member present.

Drs. Jones, Evans, Hopkins and Price reported several very interesting cases.

Dr. Walkup moved that the Fayette County Medical Society appoint a committee of three members with the Secretary to call on Dr. Henshaw of the State Health Council in reference to the chiropractors, and offer the assistance of the committee in lobbying for bills requiring this cult to pass the State Medical Board examination before they shall practice in this State. This motion was seconded by Dr. Evans and on a vote was unanimously carried.

Dr. Grose made a motion that Drs. Skaggs and Walkup be appointed on the above committee. This motion was seconded by Dr. Smith and on a vote carried.

Dr. Skaggs presented the names of the following men for membership: Dr. N. G. Champe, Marting, Dr. McIntire, Longacre, Dr. William Nelson, Montgomery, Dr. W. F. Stoneberger, Montgomery, Dr. Crank, Lawton, and Dr. G. G. Hodges, Kilsythe, and on motion of Dr. Grose and seconded by Dr. Jones the by-laws were suspended and the above physicians of the county were duly elected members.

The following officers for 1923 were elected: Dr. H. C. Skaggs, president; Dr. W. E. Bruce, first vice-president; Dr. J. W. Hopkins, second vice-president; Dr. H. L. Goodman, secretary-treasurer, re-elected; Dr. Templeton Adair,

board of censors for two years.

There being no further business, Society adjourned.

H. L. GOODMAN, Sec'y.

BARBOUR-RANDOLPH-TUCKER COUNTY MEDICAL SOCIETY NOTES

J. C. IRONS, Reporter

Dr. F. B. Murphy and wife of Phillipi started for Florida the first of the month. They made the trip in their auto, and expect to spend the winter in "the land of flowers."

Dr. F. H. Lyon, formerly of near Clarksburg, has located in Parsons, where he is actively engaged in practice. He is now occupying the office formerly used by Dr. Dear.

Dr. Ben Golden, son of Dr. W. W. Golden, is now assisting his father in Davis Memorial Hospital. He recently returned from a short stay at Rochester, where he was acquiring some extra experience under the Mayos.

Dr. C. H. Hall, of Elkins, says "the New Water System" at Elkins has about put the Doctors out of business. No typhoid, no dysenteries, and nothing to do. This, if true, and I believe it is measurably so, is hard on the doctors, but a great blessing to the people.

"Uncle Tom Wilson" is anxiously awaiting Christmas, blissfully expecting "his best girl" will remember him handsomely; and Dr. Perry is longing for his annual supply of "hair tonic."

Dr. Toney, formerly of Norton, has returned to Virginia, and Dr. Shafer is in charge of the practice there. Dr. Shafer, a short time ago, lost his wife after a short illness. In this loss he has the sympathy of the physicians and the community.

FAYETTE COUNTY NOTES

H. L. GOODMAN, Reporter

Dr. W. B. Baker, formerly of McKendree, is located permanently at MacDonald, W. Va.

Dr. C. W. Lemon and family spent week end in Cincinnati.

Dr. J. C. Brown of Nallen has fully recovered from injury to his right wrist, and resumed his practice.

Dr. N. G. Champe, of Montgomery, is now located at Marting.

Dr. W. B. Weedin, formerly of Marting, is associated with Dr. Smith at Page.

MONONGALIA COUNTY NOTES

C. H. MAXWELL, Reporter

We are still on the map, and hope to help make new map when needed. The Monongalia County Medical Society is again active. It never has been a dead affair. It becomes quiescent occasionally, but its somnambulence is over.

At our last election Dr. R. H. Edmonson the chiropractor fighter was elected President; Dr. T. Jud McBee, the overseas fighter, Vice-President; Dr. Wm. B. Scherr, the all-around fighter, Secretary; Dr. W. C. Kelly, the fighting watch dog, Treasurer, and Dr. W. C. Wylie, the unlicked fighter, delegate to the next State Convention. With this phalanx of aggressive fighters, we expect greater things than ever during the coming year.

Our Society has been organized twenty years, and has held two hundred and fifty-four meetings, besides special meetings. There were eleven charter members, all still living. We now have forty. There are a few good men in the county who do not belong. But whatever bickerings and discords that may

have crept into the profession have all been sent to the sky long ago, and we have a united and enthusiastic profession in our midst.

Dr. M. L. Casselberry celebrated his ninety-second birthday recently. He practiced more than seventy years, but does nothing now except office practice, "to keep from growing stale," as he puts it. Dr. L. S. Brook, the oldest active member, was made a life member at a recent meeting. This is the only man that has been given this honor, and he richly deserves it. He has been the balance wheel of the Society. When the machine would be inclined to run wild, he always restored equilibrium by calling out the common sense of the members.

Dr. James A. Cox, another one tried and true, is in a critical condition due to some peculiar condition following a prolonged attack of herpes zoster.

Dr. Arkin is studying pathology in Vienna and Dr. Morris anatomy in Harvard. They both expect to again take up work in the medical school next year.

The medical school is full to overflowing. Many outside students are here. It has entirely outgrown its facilities and resources.

Dr. Hardy has recently returned from attending clinics in Edinburg, London, Paris and Vienna. He spent more time in Vienna than elsewhere, and was well pleased with his clinical observations. The material is unlimited but the poverty of the people it almost unbelievable, and the hospital supplies are so meager that it is pitiable to see the conditions. Two slices of bread and hot water make up the usual menu of the patients, and the masses have it little better. I called to see him lately and as I neared the hospital I heard him singing, "although his music wasn't sweet, it was almighty strong." He was making the hospital and neighborhood resound with:

"America is good enough for me!
America, the birthland of the free!
America, the land where rules the strong right hand—
Of honest toil and work of fruitful brain."

His outburst of Americanism was so unusually manifested that the patients all sat bolt upright in bed, wondering what on earth the University Glee Club was doing in the hospital, and the nurses peeked and peered from every nook and corner of the hospital astounded at the demeanor of their usually sedate surgeon.

I said, "What's the matter with you this morning? Too much moonshine?" He said, "No, but when I got to thinking how good we have it in this country and how distressed it is in Europe, I just got to humming that old song, 'America is Good Enough for Me,' and the more I hummed the better I felt and got louder and louder until I made the hospital people think I was gone crazy sure enough. In some way Europe may be better than we are but—'Better fifty weeks of homeland than a Cycle of decay'."

"Our surgeons, physicians and specialists are better in every respect than the best men in Europe. The clinical material is unlimited among them. In that respect they are ahead of us, and one can have the opportunity to see many phases of diseases, but in actual application of appropriate measures, they are not our equals. No, sir! No Europe for me when I can stay in this

great country and pursue the even tenor of my way, unhampered and untrammeled by dogmas and senseless rules. It is no wonder I had an outburst of home love, when I thought of the countless blessings we enjoy in this the greatest of all countries."

OHIO COUNTY SOCIETY NOTES

HARRY M. HALL, Reporter

To begin with it is to be understood this is not a "Sporting Column," nevertheless it varies the monotony of scientific recital to register that sometime in January this Ohio County Society is going to have as its guests, both in the same evening, Drs. Simpson and Butt. Incidentally the subject of a Medical School at Morgantown will possibly be gone into, in detail. No preliminaries, but "after-liminaries" to the main feature in the persons of Drs. Reed and Fulton, will be staged. A general "free for all" is then to be considered.

Without trying in the least to belittle other programs we have had, the writer ventures to say this one is looked forward to with as much interest as if the Mayos, Deever, Crile and Furney were on a single program. We presume the railroads will give Bluefield and Martinsburg special rates, but if they don't it will be worth it to pay the full fare and make the trip. GENTLEMEN, WHEELING WELCOMES YOU.

After all it is a big question and has its two sides as the character of the participants will indicate. Nothing to be compared to it as a leading question for West Virginia physicians to consider, it is surprising what a good case both sides make of it, and for this reason this Society is going to have it settled in their minds. If any of you would like to have something to say on the matter come along and say it and help us have a representative gathering of all phases of this question. Even if you don't care to talk come anyway, you know and I know that the possibilities of a great and wonderful evening are ahead of us.

Our President, Dr. Williams, gave us unusually fine programs. In the boasting that this reporter has done about this Society—which he thinks sincerely is as good a little Society as is to be found in any State in the Union, THERE IS NO VANITY, for he is one too, who is not only proud of his local gathering, but of the other Societies in his State, as well as the State Organization. Too many West Virginians, and this includes a lot of Doctors, are a little hesitant about the progressiveness of their own State. The writer has been at numerous gatherings of the State Society, and attends pretty regularly his own County meetings, and he must confess it takes a very good man to tell the native West Virginians a whole lot that is new, and he has often seen a local man give an exposition on a subject that covered the ground as well as a celebrity on the same program. But in every Society are a few good men who never attend, and very often the excuse they give is that a Society is run by a clique. To a certain extent I presume they are correct, but it is easy at any time for the Society to throw the whole clique out. For some kind of a clique is necessary it seems to get anything done. But what the reporter would like to know is, does a worker in a Medical Society help his own practice in a pecuniary

way? He believes not, and would be inclined to say it hurts it. It is nine times out of ten a sacrifice. To get these men in who wont come is an anxiety to any President, and considering what fine men these absent ones are, we wonder why they give their President his added worry and responsibility. As this is the Holiday Season we hope every man with this idea will forget it, and attend as he does his daily work—WELL.

The programs here were: Dr. Carl Yount of Pittsburgh, Pa., on November 17th — "Comparative Functional Values of Amputation Stumps of the Lower Extremities, with Special Reference to Prosthetic Requirements." Discussion: Moore, Schwin, Howells.

It is difficult for anyone to add new thought to the "Amputation Ideas." Some little differences with the speaker arose, and as you know after all it is discussion that makes a good meeting.

November 24th was out of the usual. First Dr. McGregor gave an account of the Potter Version Technique, which it would seem is an improvement on nature by bringing the car out of the garage so to speak, backwards instead of "frontwards" as a regular normal procedure. Dr. McGregor always gives a paper which is at once a model of good English well delivered, and while he did not stand sponsor for the method he admirably presented it.

It would seem, however, that some of our men are still allowing them to be born the old fashioned way. This was followed by five reels of moving pictures of the Wertheim Clinic at Vienna Obstetrical Procedures in Detail. There is one thing sure that over there they can obtain "raw material" easier than they could over here, and that the patients will parade before the camera in a strict following of orders. It is said that 100,000 feet of film were secured, 5,000 used and 95,000 discarded. It certainly pictures a big undertaking. It was rather a novel picture where the Caeserian was done with no pressure on the Uterine Arteries. The film was rather expensive and the President had a voluntary contribution which netted a good portion of the cost. Nurses from surrounding hospitals attended with great interest and profit.

December 1st—"Passing of the Country Doctor," by Dr. Robt. J. Reed. 2—"The Present Status of the Ohio Valley Academy of Medicine," by H. P. Linz, chairman of the committee. You may read Dr. Reed's paper somewhere later, but you will miss something when you do not hear him. Before the meeting Dr. Reed said that he thought maybe some would deem it "sob stuff." I think he was right. Many a lump came up in the throat that evening. No further comment is needed. You all know it was a good paper.

We are to have an Academy of Medicine here. Its scope is similar to that in New York, Philadelphia and elsewhere. It is in no way to conflict with the Ohio County Society. Its object is to make Wheeling a medical center, and to give the profession a building of its own, where they can congregate in a way worthy of the profession. We can have men from Ohio, Pennsylvania and elsewhere. Its following is di-

vided into Fellows, Associates and Benefactors. The last meaning anyone who desires to express his gratitude for one of the many cures doctors are securing can give $10,000 towards a new building. After all, and in all seriousness, what could possibly be a better benefaction or movement. The President is—you guessed it—Dr. Henri P. Linz, Vice-President Dr. Robert Reed, Secretary Dr. McGregor, Treasurer Dr. Williams, Chairman Committee on Admissions Dr. Schwin, Chairman Committee on Library Dr. Hupp, Trustees, five years Dr. Fulton, four years Dr. Hall, three years Dr. Noome, two years Dr. Clovis, one year Dr. Webb. Applications for admission are now open, and if you care to inquire into it further, address the Secretary, Dr. A. MacGregor, Wheeling.

December 8th—Dr. John Phillips, Cleveland, Chief of Cleveland Clinic (Medical Division)—Some General Considerations in the Diagnosis of the More Common Diseases of the Stomach—and their Treatment. Discussion Dalby and McColl. A fine lecture given in conversational tones with finality and clearness. Over an hour with few departures—a good test these days. Neither for high brows nor low brows—but a good talk that everybody enjoyed. A second performance, and we hope it will some day be a third and fourth. Recommended to any Society that wants a popular lecture that everybody will like and enjoy. Two men discussed this paper who do not so often get on their feet, and yet both presented topics the speaker welcomed and laid stress on as important points he had overlooked, which goes to show that everybody is essential to a medical society, and where a man remains silent everybody is losing.

December 15th—W. W. Lermann, Pittsburgh—"The Diagnosis and Medical Treatment of Early Biliary Disease. The Doctor was we believe, with Reyfuss, and is one of the younger set of Pittsburgh. An excellent paper delivered a little too fast. This we believe is a common fault with the younger men. They take a lot of detail for granted and hurry over it. The Doctor in his discussion was quite different, and as he had called out a number of questions, he came back in excellent style.

Dr. O. M. Staats was not always a great believer in women as doctors, but when Mary Louise came, and she looks so much like him, he has decided to have her already, so that when he quits, all he will have to do to the brass sign in front of his door is to change O. M. to M. L. We said she looked like him. That is not altogether correct—her expression is like his—she looks like her mother. Any of you who have seen Mrs. Staats know that Empress Maria Louise is some baby.

Martha Fulton, daughter of Dr. W. S. Fulton, is seriously ill at the Ohio Valley General Hospital. The Doctor has all our sympathy.

Dr. J. H. Caldwell, who was with Dr. Staats, has moved to Warren, Ohio.

Dr. Petticord, one of the best known Doctors in this section, located at Elm Grove, had a close call for his life. The train struck the rear end of his machine and while the Doctor was injured, we are glad to report it was the motor car that stood the worst of it. Con-

gratulations sincere and plentiful have come the Doctor's way.

The new Home for Nurses of the North Wheeling Hospital is large and commodious and about finished and ready for occupancy.

The two staffs of local hospitals are holding regularly very good clinical sessions. They are very frank expositions. Have you noticed how candid and frank we are all getting to be? No one would think of having 90% cures nowadays. You that think there is no progress, how about this?

MEDICINE AND SURGERY

THE DIFFERENTIAL DIAGNOSIS OF LOBAR PNEUMONIA AND APPENDICITIS IN CHILDREN

A series of 145 cases of lobar pneumonia in children, aged from 2 to 15, have been studied by F. Dennette Adams, Washington, D. C., and Ben J. Berger, Kansas City, Mo. (Journal A. M. A., Nov. 25, 1922), to determine the most common sources of error in diagnosis, and the signs and symptoms in early pneumonia which are of the greatest value in reaching the correct diagnosis. For purposes of comparison, a series of sixty-three cases of proved appendicitis have been reviewed. Of the cases of lobar pneumonia, 17.5 per cent had at one time or another been wrongly diagnosed as acute appendicitis or surgical condition of the abdomen, and 4.8 per cent as cerebrospinal meningitis. The authors stress the fact that a history of cough or pain in the chest points towards a diagnosis of pneumonia, but absence of respiratory symptoms does not rule out this disease. A history of vomiting, abdominal pain and diarrhea is of no value, as these occur as frequently in pneumonia as in abdominal conditions. The pneumonia patients always seem more ill and present a characteristic general picture not seen in the abdominal cases. If recognized, this is a very important differential point. Pneumonia patients show much more of a systemic reaction, as seen by pulse and temperature chart, than do the abdominal cases. Careful examination of the lungs will frequently reveal a small area suggesting early solidification; but if it is located in the upper half of the chest, or in patients who do not otherwise present the picture of pneumonia, it must be interpreted with caution. Abdominal tenderness and spasm are relatively frequent in pneumonia, but are of a type dissimilar to those found in acute abdominal conditions. A high leukocyte count favors the diagnosis of pneumonia, except when peritonitis or appendix abscess is suspected, in which case it is of no value in differentiating the condition from pneumonia. In the presence of symptoms or signs of meningeal irritation, lobar pneumonia should be ruled out before lumbar puncture is done.

SYPHILIS OF THE MOUTH

William Allen Pusey, Chicago, (Journal A. M. A., Oct. 14, 1922), states that there is a close relation between the tissues of the mouth and those of the skin. Their structures are very much alike, and they react to many pathologic processes in the same way. There are numerous systemic diseases in which there are eruptions on the oral mucous membrane as well as on the

skin, and these oral eruptions are identical with those of the skin, except as they are altered by the peculiar local conditions to which they are subjected in the mouth. These facts are particularly well exemplified in syphilis. The skin and the mouth are the structures for which syphilis shows its greatest predilection, and the predilection is quite as great for the mouth as for the skin. It is probably true that syphilis occurs with as great frequency in the mouth as on the whole surface of the skin. Its frequency in the mouth, then, would of itself make syphilis of the mouth a subject of great practical importance. Pusey discusses primary syphilis of the mouth—about 60 per cent of all extragenital chancres are chancres of the mouth, secondary syphilis of the mouth, such as mucous patches, smooth glossitis of early syphilis; condylomas; tertiary syphilis of the mouth—gummas, interstitial infiltrations, smooth atrophy of the tongue, sclerosis of tongue, leukoplakia and macroglossia and macrocheilia; congenital syphilis. The treatment of syphilis of the mouth is the treatment of the disease in general. The lesions of syphilis in the mouth heal with greater rapidity under specific treatment than do those of the skin surfaces. The late lesions of syphilis of the mouth yield promptly to specific treatment, whether arsphenamin, or mercury and the iodids, or both. For their healing, mercury and the iodids are all sufficient, although healing is somewhat more rapid when they are combined with arsphenamin. No local treatment of early or late syphilis of the mouth is necessary beyond cleanliness and obvious rational measures. The only lesions that will not heal under specific treatment are those in which there is dead bone whose removal is necessary before cure can occur.

MERCUROSAL IN THE TREATMENT OF SYPHILIS

Because of broad claims made by the manufacturers for mercurosal, H. N. Cole, J. R. Driver and J. G. Hutton, Cleveland (Journal A. M. A., Nov. 25, 1922), determined to inquire into them and to find out whether the company had actually evolved a superior mercurial preparation; something that would really add to our armamentarium for the treatment of syphilis. The drug was used on thirty-eight different patients. It was administered to fifteen patients by the intro-muscular route, and to twenty-three patients by the intravenous route, one of these patients receiving part of the drug intravenously, and part intramuscularly. The drug was given as nearly as possible, according to the recommendations of the manufacturers. Among the therapeutic effects produced was a beginning stomatitis after two or three injections in four instances, indicating certain mercurial effects from its action. Quite a large number of patients were much improved as a result of its use. However, careful examination of data would not lead one to believe that this preparation is superior to any one of several other old, well-tried mercurials. In seven instances (approximately 20 per cent), the patients were worse following treatment with the drug; and ten of the patients, almost 25 per cent, showed no improvement. Comparison of this drug with red

mercuric iodid by the injection route, and with mercurial ointment in several instances demonstrated that the latter two remedies had at least an equal, if not a superior, antisyphilitic therapeutic action. Moreover, the drug had far from the high spirocheticidal value which the printed data of its manufacturers claimed. In those patients who were followed with a daily dark-field examination, the spirocheticidal value of the drug was not so high as that expected when using red mercuric iodid or mercurial ointment. The effect on the Wassermann reaction over a short period of time was practically nil. The drug when given intramuscularly seemed to be moderately well tolerated, but not any better than red mercuric iodid. Intravenously, however, in four of twenty-three patients, a sclerosis of the vein developed, this despite claims of the manufacturers that there was no deleterious action of the drug on the vein walls. In the twenty-three patients treated by the intravenous route with Mercurosal, each one received an average of 0.508 gm. of metallic mercury while under the treatment. The fifteen patients treated intramuscularly received 0.254 gm. of metallic mercury through the Mercursoal. The patients treated by the intramuscular route with Mercurosal, in eleven injections, received almost as much metallic mercury as a patient under a six weeks' course of mercuric chlorid receives, 0.254 gm. as against 0.31 gm. The patient, on the other hand, if treated intravenously, received 0.508 gm., as against 0.31 gm. Why is it that the disease is not more benefited by Mercurosal? For the benefit of the manufacturers, the authors add the suggestion of Sollmann that perhaps the drug is excreted too rapidly to become fixed in the tissues and to exercise its beneficial action.

URINARY INCONTINENCE IN THE FEMALE

The technic of operation advocated by Edward L. Young, Jr., Boston (Journal A. M. A., Nov. 18, 1922), consists of a median incision in the anterior vaginal wall, starting just below the urethral opening and extending downward to just above the cervix. Dissection is carried down to the urethra and bladder, and the vesical neck identified. This can best be done with a Pezzer catheter in place. In one class of case, the first in Young's classification, a careful dissection toward the side will reveal a definite edge of tissue which is thickest at the level of the vesical neck. This is the torn external sphincter. This is brought together over the vesical neck with the mattress sutures. The upper and lower borders are likewise sutured in the median line and the mucous membrane sutured over all. A Pezzer catheter is left in place for ten days, and then for two days the catheter is intermittently closed and opened to get the bladder to become accustomed to its work. The patient must be catheterized after first voiding to see that there is not too great a residue from a very snug suture. Some residue often occurs, but disappears in from a few days to a week. In Young's second class, the extrinsic muscles have been gradually thinned and weakened, and no such definite edge can be demonstrated. The intrinsic

muscles are similarly relaxed and the plication of the bladder neck must first be performed. Several superimposed mattress sutures are generally necessary before the urethra is snug enough, as indicated by the grip on the inlying catheter. As the last sutures are put in, it pulls the tissues from the sides toward the median line and makes the next stage much easier; this consists in as careful a dissection as possible laterally, toward the pubic arch, to find what is left of the thinned-out fascia and extrinsic muscle, which is then sutured over the bladder neck as far as its thinned-out condition permits. This not only reinforces the first sutures but tends to anchor the urethra more solidly. Redundant vaginal mucous membrane is cut away and the wound closed. When there is an accompanying cystocele, the closure of this fascia all the way down to the cervix constitutes the best type of cure.

GANGRENE AND EXFOLIATION OF THE URINARY BLADDER WALL IN TYPHOID FEVER

Three cases are recorded by T. Grier Miller and Charles C. Wolferth, Philadelphia (Journal A. M. A., Nov. 18, 1922). They represent the only instances yet reported in which gangrene and exfoliation of the urinary bladder have occurred in typhoid patients whose diagnoses were determined by laboratory methods. Only two other cases, those of Perriol and of Legueu, have been reported since the discovery by Eberth in 1880 of Bacillus typhosus, and in the accounts of those no reference was made to laboratory tests. In both of the authors' patients the Widal test was positive, and in one a blood culture demonstrated the causative organism. It is quite interesting that the two cases developed simultaneously in the same hospital, and yet that there was no known direct or indirect contact between them. One occurred in a patient who had a special graduate nurse and a private room on the third floor of the institution, while the other was a ward patient on the first floor of a separate wing of the building, and no one physician attended the two individuals. In these two cases gangrene and exfoliation of the urinary bladder were indicated by certain clinical features and the passage through the urethra of fragments of bladder tissue. In one of these, the mucosa and submucosa were demonstrated as being absent from the bladder at necropsy. The etiology of this complication is obscure. All the eight reported cases occurred in women, all but one patient had urinary retention, and the two here reported had numerous micro-organisms in the urine. In one of these, the only one in which cultures have been made, typhoid bacilli were not found. It is suggested that local infection may be the important factor in all the cases. Foul, bloody, purulent urine developing after marked urinary retention should suggest the probability of bladder gangrene; the presence of bladder tissue fragments in the urine is pathognomonic of exfoliation.

A SIMPLE NONOPERATIVE METHOD FOR TREATING GASTRIC ULCER

Besides the withholding of food and rectal alimentation, Albert A.

Epstein, New York (Journal A. M. A., Oct. 14, 1922), resorts to continuous irrigation with distilled water warmed to body temperature or even a little higher, then colored with a saturated solution of Congo-red (1 c.c. to the gallon). The Congo-red serves as an indicator of the presence of hydrochloric acid in the stomach, which manifests itself by the blue coloration of the return fluid. The irrigation should be continued until the return fluid is of the same color as the irrigating fluid. If solid particles are present in the return fluid after all the acid has been removed, the irrigation should be continued until they are no longer present. The inflow is then stopped; but the suction is continued until all the irrigating fluid has been removed from the stomach. Fifty cubic centimeters of a 0.5 per cent colloidal iron solution is then allowed to flow into the stomach, and permitted to remain there. The tubes are then withdrawn and the treatment is complete. The patient is permitted to rest for two hours. The colloidal iron is given for the first three days only, or longer in cases when no food is given by mouth. In the two hour interval between treatments, a 5 per cent glucose solution is administered by the rectal drip method. Each period of irrigation, followed by the instillation of colloidal iron, constitutes a treatment. The number of treatments which it is possible to carry out in the course of a day is somewhat variable, and depends on a number of circumstances. From the experience thus far gained by Epstein the number of treatments need not exceed four, but, for proper efficacy, no less than two should be given daily. The total duration of the treatment is from two to three weeks. In the first week, the maximum number of irrigations are given. Subsequently, the number is gradually reduced, and so timed as to fit in with the feeding of the patient. The relief which the patients have obtained by this method of treatment is said to have been very striking. Whether the results thus obtained will prove to be permanent requires further observation.

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THE EVOLUTION OF MODERN DIAGNOSIS; AN HISTORICAL REVIEW

Oration on Medicine Delivered at Annual Meeting of West Virginia Medical Assn., Huntington, May, 1922

By G. B. CAPITO, M. D., Charleston, W. Va.

When one stands in the present broad field of modern diagnostic methods and glances back over the old paths that lead to it, there are observed trails that pass over mountains, through forests, into jungles and finally through dense shadows into utter darkness, which reveal many obstacles encountered by physicians of the modern era, and by the healers of ancient and prehistoric times. The paths of truth in the old days were narrow, and followed by the few they are now broad highways traveled by the many; and the monuments, or signposts, or mile-stones on the way, may be said to be decorated with the names of our great men in medicine.

The general tendency of mankind has always been toward progress and improvement and toward a betterment of conditions as they have existed. A Russian writer, Count Korzyvski, has recently given a concept of humanity which differentiates men from animals — even from those animals of the highest type. It is the time-binding element, "The capacity of man to use the fruits of past labors for the development of the present. Man, even in the savage state, bequeathed to his children a few useful objects and the sum of his experience; this in turn was added to and given to the next generation; and so there was an arithmetical and geometrical progression of civilization which continues today, dependent upon the experience and labors of generations gone by. Man makes the past live in the present and the present in the future." It is not so with animals. The beaver is indus-

trious and a remarkable builder of dams, but he does not show progress from one generation to another; a beaver dam is always a beaver dam. The same applies to bees with their hives, birds with their nests, and to other animals with their various activities.

The early years of our civilization are called the dark ages and this applies to matters of medicine as well as to matters of science, art, mechanics and civilization in general. "The suckling stage had very little to aid it; there were no big thoughts handed down by big men, there was human ignorance," (Korzyvski). Particularly can this be said of medicine, for there abounded in those old days an intense superstition in regard to disease and to the body itself, that filled fully and daily the minds of the people. Medical practice of all races on all known parts of the globe was a matter of charms and spells in which diseased conditions found, were supposed to be due to some supernatural agent. There entered always the weird, noisy and fantastical performance in an attempt to prevent the angered gods from showing their wrath on the afflicted person. The diagnostician determined the proper spirit or god causing the disease; when the diagnosis was made, treatment consisted of an appropriate charm, fetish, burnt offering, or sacrifice, to placate or combat the supernatural evil. These mysterious actions frequently did good to the sick savage as a suggestive therapeutic aid. Because of the belief in the supernatural cause of disease there was a close association of medicine with the primitive religions, and this continued to the era of Christ, even in civilized countries, and today is to be found among the savages of the Orient and Africa.

Diagnosis made slow progress. Treatment progressed more rapidly. The gods that caused disease were supposed to exist in certain bitter plants and herbs and the eating the herb containing the god or evil spirit was the treatment often advised in a form of drug therapeutics known as "eating the god" (Garrison.) A review of facts concerning the ancients shows that trephining was practiced in prehistoric days for epilepsy (probably helping come cases of the Jacksonian variety) circumcision in 2500 B. C., and splints have been found on some of the old Egyptian mummies; hypnotism originated with the Hindus at an early date and massage was practiced by the early Japanese, Malays and Indians. In some of the nations, particularly the Chaldeans, the evil spirit causing disease was supposed to be influenced by the position of the sun, moon, planets and stars, and the diagnosis as well as prognosis was determined by their horoscope. The evil gods or spirits causing the many diseases were eventually, in a general way, unified as spiritual knowledge increased, and all ailments were then attributed to one god of all evil,—the Devil.

There was, however, a gradual weaning away from these simple superstitious ideas as there developed more and more culture, more and more art, and science entered into the progress of civilization. Each nation in its turn furnished new truths and new facts and there

was established eventually a real foundation for scientific medicine.

Herodotus gathered in historical form many details concerning the art of medicine in ancient countries, particularly Egypt; and much learning of the Greeks was based on knowledge obtained in this way. "European medicine," says Garrison, "begins properly in the age of Pericles, and scientific advancement centers in the figure of Hippocrates, who gave medicine its scientific spirit and ethical ideals in the fifth century before Christ." This was also the age of Sophocles, Plato and Socrates,—the age of geniuses who seemed to inspire one another as leaders in their particular lines of thought. Hippocrates developed in diagnosis the art of clinical inspection and observation and established the inductive method of reasoning instead of the haphazard method of thinking that had hitherto prevailed. He instituted, for the first time, thorough examination of the patient's condition, including the facial expression, pulse, respiration, excreta and sputum; he localized pain and movements of the body. He did not use percussion; he approached the discovery of auscultation when he noted the sucussion sound in the chest of a case of pneumo-thorax.

Progress in the diagnosis of disease, following the monumental work of Hippocrates, was extremely slow. Galen, a wondering practitioner and a fully informed clever physician in his day (the second century), added very little to diagnostic methods; he believed in humors, the theory of the Pythagorean four elements, and his own false theory of a "Pneuma" or spirit in the heart, brain, and liver. These theories were upheld for almost fourteen centuries and his works were referred to as an authority.

In 1760, Auenbrugger, the Austrian, "a writer of opera, a friend of the reigning Empress Theresa, a member of the select circle of Viennese savants when Vienna was the center of German literature and culture," wrote the first article on percussion. This contained 1200 words and is a medical classic. It was not received fully until the year before his death, 1808, when its extraordinary value was praised and extolled by Corvoisart. This at once opened up a new field which was soon added to by the discovery of auscultation by Laennec in 1819. Laennec was one of the greatest clinicians of all ages. "A character that was modest, refined, generous and tolerant; he put the diagnostic signs of cardiac and pulmonary disease on a reliable basis, using the analytic as well as the synthetic method of diagnosis." He invented the stethoscope which has been a practical aid since his day.

The discovery of germs as the cause of disease by Pasteur and the work of Virchow and Koch at once opened up another new field for diagnosis. Thereafter fevers were not to be known simply as fever, continued fever, plague, ague, chills and fever, etc., but symptoms and signs and the isolation of the germ were connected as cause and effect, and definite entities were established to various forms of infectious disease.

Concurrent with and following the discoveries of the above named valuable methods of inspection, palpation, percussion and ausculta-

tion, there occurred the invention of apparatus of various kinds to assist in the diagnosis of disease.

Particular mention should be made of the thermometer invented by Gallileo between 1593 and 1597. It was later used by Boerhaave in his clinics and then found its way to the hospital. The temperature taken was axillary and the thermometer was so large that Sir Lauder Brunton says, "it was carried under the arm as one might carry a gun." This was soon followed by the smaller size.

The sphygmograph for study of the pulse, was invented by Marey in 1860. Great importance has always been attached to the pulse as a means of diagnosis. The Chinese, who always went into excessive detail in all matters of medicine, divided and subdivided the character of the pulse, touching it in various ways and at various points of the radial artery, and attempted to connect a special pulse with each organ and disease. Herophilus, in the time of Alexander, counted the pulse with a water clock and made an elaborate analysis of its rate and rhythm (Osler). Galen developed through pupils and followers, false ideas that were fanciful, attempting to establish, as did the Chinese, a special pulse for each disease (131-201 A. D.). Ideas as to the cause of the pulse were very vague until the discovery of the circulation of the blood by Harvey at the beginning of the seventeenth century. Kepler used pulse counting to time his astronomical investigations in 1600 A. D. Sir John Floyer recorded the pulse rate by timing with a watch which ran for exactly one minute (1700 A. D.), and during the time of the great Dublin School in 1800 A. D., "the doctor, with watch in hand, became a familiar figure at the bed side." It was during this time that the Corrigan water-hammer pulse, heart block, the Cheyne-Stokes respiration were estbalished as diagnostic signs. In 1825 the Webers measured the velocity of the pulse wave and established the fact that it was not synchronous in all arteries.

The history of the microscope in medicine is vague. Kirsher, 1658, gave the first account of investigations of the cause of disease by using a microscope, and showed by experiment the development of small animals in decaying matter. This was a ready step to the microscopy of today, after further improvements by the father of Lord Lister and later by the addition of higher power lenses.

First studies in blood pressure were made by Kronecker, aided by Von Basch, 1881. Sphygmomanometric studies were developed by Riva-Rocci, but not used as a practical diagnostic aid until the arm band, originally 2½ cm. wide, was increased to 12 cm. The blood pressure apparatus is now in general use and a part of almost every physician's equipment.

In chronological order the following is a partial list of other instruments that have been used as aids in diagnosis: the opthalmoscope—invented by Helmholz, 1851, which gave a great impetus to the scientific study of opthalmology. Esophogeoscope, Kusmal, 1868; cystoscope, urethroscope, rectoscope, Nitze, 1877; gastroscope, Mikulicz, 1881; Bronchoscope, 1898, Suspension Laryhgoscope, 1912; and re-

cently the instrument of Einthoven, for electrocardiograms. The Roentgen rays were discovered by Konrad Roentgen in 1895, and X-Ray apparatus has become a most important addition to the armamentarium of the hospital and the general diagnostician.

Other special diagnostic aids were developed, particularly those involving the chemistry and microscopical examination of the urine, sputum, excreta, blood and the secretions of the body.

This brings us to another notable step of progress in the evolution of diagnosis called Group Practice, Group Diagnosis or Group Clinic.

In the early stages of diagnosis there was no science in medicine; there was not a sufficient knowledge of elementary truths and the toilers groping as best they could had only the faculties of observation and speculation and the inherited traditions of superstitious folk lore. They did not recognize the value of analytic and synthetic thinking, nor was there a thought of scientific apparatus as an aid. At the present time the science of medicine has grown large and has become divided into numerous branches, so that one attempting to follow the old line of general practice will find his patients going far afield. The science of medicine in its details has arrived at a point where the mind of one man can not grasp it fully in all of the numerous ramifications that have been evolved. Hence there must be recourse to those who specialize; but, "for the good of the patient," which should always be the one great aim, there must be a proper coordination of these specialties; otherwise there will be false reasoning, gross error, and faulty diagnosis.

This Group Method in use for the past few years has not received universal approval, but is gradually being developed so as to overcome the natural obstacles of proper ethics, of livelihood for the physician, of expense to the patient, of organization and of clinical facilities.

The finer instruments of diagnosis and laboratory methods are not always necessary. As we go about in our work-a-day world, certain phenomena present themselves upon which we make correct diagnosis of disease. The clinical use of our senses by inspection, palpation, hearing, and even by odor, remains our most important diagnostic aid, and in many ways we lose the strength that comes from developing our reasoning powers when we allow the laboratory, the X-Ray, and special mechanisms to thrust the diagnosis on us.

The good diagnostician always keeps in mind that there are such wonderful diagnostic aids as what one might term diagnostic sees, diagnostic feels, diagnostic hears and even diagnostic odors. To give the list of diagnostic sees would be too lengthy for the scope of this paper; however, who does not know the great value of diagnostic feels? —the crepitus of a fractured bone, the rigid abdomen of acute peritonitis, the snowball crackle of emphysema in the soft tissues, the characteristic shot-like feel of a beginning smallpox eruption, the moist, warm tremulous hand clasp of the opium eater, the doughy abdomen of tubercular peritonitis, the feel of the dislocated joint as it

snaps into place, the cold stiff feel of the body in death, the friction rub of dry pleurisy, the grating sound of a roughened knee joint, the voice vibration of the chest wall with a solid lung beneath, the presystolic thrill, the feel of fluctuation in fluid tumors, the fetal movement under the hand, the diagnostic pulse feel, particularly the water hammer of aortic regurgitation, the bounding pulse of fever, and the thready pulse in impending death. Then there are some diagnostic hears: the "whoop" in whooping cough, the raucous stifled breathing in laryngeal diphtheria, the rattling breath of pulmonary odeoma, the single shuffling gait of the hemiplegic, the cry of temper in a child, also the cry of pain, the slow stertorous breathing of opium poisoning, the Cheyne-Stokes breathing of uraemia, the intermittent cry of the mother in travail, the first cry of the infant, the muffled cry of an epileptic at the attack, the meningeal cry, the laugh of the idiot. Also there are diagnostic odors: The odor of ozaena, the odor of an abscessed tooth, the odor of acid vomitus, of the breath of a uraemic, odor of a foul fecal fistula, the odor of alkaline urine, of sweat, the odor of clean fresh muscle, the characteristic putrid odor of sputum from an abscessed lung, the odor of poisons, particularly the characteristic garlic odor of phosphorus, and the bitter almond odor of cyanid.

Diagnosis has frequently been referred to as an art and the enumeration of the above should support this idea. The senses are all involved; sight, hearing, touch, smell, and even taste; and to these should be added what one might term a flexible intelligence. The earnest diagnostician of today develops these powers to the fullest possible extent and then calls to his aid, if necessary, the bacteriologist, the chemist, the Roentgenologist, and other specialists of detail.

In opening this address there was a glance backward into the past; in closing it might seem presumptuous to offer a look forward into the future; and yet when one considers the tremendous progress made in the past few centuries, and when one thinks of the continual struggle for light by the every day worker in medicine as well as by the research expert in special fields; and when one thinks of instruments that will be invented, of new forces that will be discovered, of new methods of diagnosis that will be evolved and of the widely developing field of preventive medicine—there are reasonable grounds for the prophecy, that the numerous obstacles so difficult to overcome now, will be dissolved by master minds that follow; and in centuries to come, it may be true that to be afflicted with disease not inherited will be as much of a reflection upon the commmunity, or the medical adviser, or the patient as the presence of typhoid fever today is a reflection upon the intelligence of the community that harbors it.

Bibliography

1. Korzyvski, Alfred: The Manhood of Humanity.

2. Osborn, H. F., 1916: Men of the Old Stone Age.

3. Black, W. G., 1883: Folk Medicine.

4. Garrison, Fielding H: History of Medicine.

5. Camac, C. N. B.: Epoch Making Contributions to Medicine, Surgery and the Allied Sciences.

6. Walsh, James J.: Makers of Modern Medicine.

7. Graves, Robert: The Irish School of Medicine.

8. Harvey, Wm., 1628: An Anatomcial Disquisition on the Motion of the Heart and Blood in Animals.

9. Auenbrugger, Leopold, 1761: Percussion of the Chest.

10. Laennec, R. F. H., 1818: A Treatise on the Diseases of the Chest and Mediate Auscultation.

NO MORE DOCTORS NEEDED IN WEST VIRGINIA

Read Before the Annual Meeting of the West Virginia State Medical Association, at Huntington, May 17, 1922

By A. B. BUTT, M. D., Elkins, W. Va.

Those of us who attend every meeting of our Association are well aware of the effort being made to establish a full time, four year medical school in West Virginia.

This number, unfortunately, constitutes a very small percentage of the rank and file of our profession.

The majority of the members "back home" are, I think, unaware of the propaganda being put forth for the accomplishment of this end.

However much we may disagree, at least we will agree on one thing: the importance of the subject.

Surely it should be well considered and the arguments for and against be listened to in a dispassionate manner; in just such a manner as a board of directors would listen to a business matter coming before them.

We all know how very easily bodies such as ours are oftimes induced to lend their endorsement to projects that may be very difficult to carry through or perhaps even detrimental if carried through. As an illustration: A recent meeting of the Federated Woman's Clubs was asked to endorse the Jackson's Highway route. Of course they endorsed it. It is so easy to indorse. I could not help but wonder if one per cent of the endorsers had the least idea of the route, the grades, the cost, the benefits to be obtained, the possible loss from not taking some other route. Understand I know nothing whatever of this road but I could not help but wonder if those who endorsed were not equally ignorant.

The function of a medical school consists almost entirely in turning out physicians. If we do not need physicians, if there is already a sufficiency, then we do not need a medical school. If there is a shortage of physicians, then the question arises, How shall this shortage be best met? Shall it be met by the establishment of a four year medical school or in some other manner?

Your grazing farmer needs about so many steers per year. Shall he keep sufficient cows for his purpose or shall he buy his young stock? The house wife needs a dress; shall she make it or buy it?

Those who advocate the establishment of this school must of necessity claim a shortage of physicians or at the very least an unequal distribution.

On the truth or falsity of this claim I am content to stand or fall.

Let us see how we compare with others. West Virginia has one doctor to every 726 people. England one to every 1,500, Central Europe one to every 2,000 to 2,500. In other words we have nearly twice as many as England, three times as many as the Continent.

Dr. N. P. Colwell, secretary of the Council on Medical Education and Hospitals, writes me: "There has been considerable talk about the shortage of physicians in rural communities but this is a condition due to economic causes, not to any shortage of doctors. There seems to be a great surplus of doctors in the cities, the difficulty being that they do not go to rural districts, chiefly because they cannot make a living in those places."

Dr. Simpson stated in an address before this body last year, "Our cities and towns are over supplied."

I recently inserted in the Journal a rather modest ad for an assistant. I have received so far 173 replies and they are still coming.

Turn to the J. A. M. A. of March 11, 1922, page 753. After stating that certain dailies, boards and committees have been complaining of a shortage of physicians the writer, Dr. Morgan, says: "Stop this propaganda. There are more idle physicians in Texas and Oklahoma than are necessary to fill all the needs and openings in the United States. In every nook and corner in Texas there are from three to five physicians where one would do. A simple remedy would be to grant reciprocity more liberally and advertise the places needing physicians."

The Journal for April first, page 994, contains a similar article. This article is by a Nebraska physician. He says there are so very many in Nebraska that it is exceptional to find one who is doing more than merely eking out an existence.

Do you, my brother, want it said of West Virginia that it is only the occasional physician who is more than eking out an existence?

If not had we not better weigh this question well, had we better not look before we leap? Should we not seriously consider the matter strictly on its merits?

At one of our banquets not very long ago a ministerial guest made an impassioned plea for more physicians. Now it is true that he may have made a profound study of the needs of our people and have come wisely to this conclusion; but he made no claim to any such investigation and I suspect that he knew exactly as much concerning the needs of our country physicians as I do concerning its needs for clergymen.

Last year at our meeting in Charleston I diligently inquired where these doctors were needed. Every single physician I met without a single exception declared with emphasis that no doctors were needed in his community. No it was a wonder that those already there did not starve. It reminded me of some of my hunting experiences. The stranger you inquire of has to admit that there is little or no game in his community but just a few miles away there is an abundance, at least he has heard so.

Is there a single physician within the sound of my voice who personally knows of even a very few suitable locations for a physician?

I will define "suitable location" as being one where an average physician, having graduated from an average medical school, possessing an average amount of common sense and business acumen can support himself and family in decency as becomes an educated gentleman; own and keep up to date the equipment demanded of our profession; have on hand a sufficiency of medical books and journals; take an occasional post graduate course; own an unencumbered, comfortable home.

If any of you know of such a locality close to where you live, and wish me to do so I will try and fill the vacancy for you.

Please note location. I confess that I have not much patience with the brother who is greatly exercised over the needs of some distant community but is so very sure his own particularly community has no such needs.

No doubt there are communities in West Virginia where physicians are needed. Do they not also need plumbers, lawyers, priests, bankers, preachers, hard-surfaced roads and railroads?

Will not the need for one be met about as soon as the other? Is it not true that these needs have not been met for just two reasons: first, the demand is not sufficient to pay a "living wage"; second, the tendency of our age is towards the cities, away from the country, The last census, for the first time in our history, showed more people living in the towns and cities than in the country.

I recently mentioned this matter to a lawyer of our city who had been educated in Morgantown. He expressed himself as believing it to be impossible to get the average man to locate at some cross roads after having spent four years in the city with its conveniences and pleasures. Even if the man himself is willing to go to some remote district will not his wife object?

My good friend Dr. J. L. Miller employs a number of men, some of them for outlying districts. He tells me it is harder to keep the wife satisfied than the man.

If you ask an advocate of the full time medical school how he will get the graduates to the remote districts, how they will live in comfort and how they will be kept there, he is at once unable to answer.

One brother at Charleston did give me a real working recipe. "We will starve them into it," said he. It reminded me of the efforts of some landowners to "clean up," "browse" mountain land by means of cattle. To do this he must overstock, he must starve them, put on more cattle than the field will sustain. When this is done the cattle will straddle and bear down large sapplings to get at the leaves. It is a heartless course and you may be sure when fall comes this farmer has no prize winners in his herd.

So I will grant without further argument that this Charleston brother's plan will work, just graduate more and more physicians, do away with fees, grant a bonus if necessary and you can fill every cross roads and village in West Virginia with struggling, starving physicians. Gentlemen, I don't like the recipe even though I know it will work. While they starve may not some of the rest of us hunger?

When we come to graduate physicians they will locate wherever it seems best to them, be it West Virginia, Alaska, Timbucto or China. My own experience is that a rather small percentage of physicians locate in the places from whence they come.

I fancy I can see a smile across the faces of some of our younger brethren as they sit with hands folded over well filled stomachs and wonder why I mention starvation.

Brother you do not realize former conditions; you do not realize that your present favored condition is due to a lessening of the supply of doctors, to a decrease in the number of medical colleges. Once they flourished like Jonah's Gourd. In 1906 there were 162 medical collgees, now there are 83. Most of our larger cities contained from five to seven. Winchester, Va., contained one, Baltimore at least seven, St. Louis and Louisville probably more. It cost but little to enter. This resulted in an over supply of under prepared physicians. In my boyhood days villages where one good man might have lived and secured a "living wage" contained from 3 to 5 doctors. Not more than one of these could on his upsupported note have raised at the bank one hundred dollars.

Is it any wonder that the proportion of addicts and drunkards was much too high? Was not their hopeless outlook upon life largely responsible? Were not their meager rewards sufficient to produce this condition of despondency?

Miserably poor, without sufficient means to re-educate themselves, without equipment other than a pair of saddle bags and lance. Why? Simply because there were too many of them; there were too many because diplomas were too cheap, too common.

That great economist, Adam Smith, in his "Wealth of Nations," brings this point out very clearly. Writing on the deplorable condition of the clergy he tells us that the wages of a journeyman mason were much superior to a curate. This he attributes to the fact that the clergy were educated at public expense.

He says of our profession, "If an equal proportion of people were educated in medicine at the public expense, the competition would soon be so great as to sink very much their pecuniary reward. It might not then be worth while for a man to educate his son to this profession at his own expense. It would soon be entirely abandoned to such as had been educated by those public charities, whose numbers and necessities would oblige them in general to content themselves with a very miserable recompense to the entire degradation of the now respectable profession of physic."

He further tells us that men of letters were in the same class as the clergy and for the same reason.

"The usual reward of the eminent teacher bears no proportion to that of the physician; because the trade of the one is crowded with indigent people who have been brought up to it at public expense, whereas that of the other is encumbered with few who have not been educated at their own."

The lowering of standards, financial and otherwise, cannot by any

possibility do anything else than lower the character of the output.

Wide awake, alert, upstanding doctors—doctors whose unsecured note is good at the bank—are far more valuable to a community than discouraged, disheartened ones.

Optimism, not pessimism, should show on the doctor's countenance.

The A. M. A. seeing the deplorable conditions I have mentioned began years ago a weeding-out process. Through their efforts it became more difficult to enter the profession of medicine and in consequence an increase in the rewards of the men who did enter.

Today by means of this very weeding-out process, this decrease in the number of medical schools, the life of the physician is becoming more tolerable than formerly. Are you going to do anything to undo this work, to further overcrowd the profession?

Unless it be the ministry, I know of no other calling or profession which is trying to increase its numbers. Let us not forget than many of the ills from which we suffer have been self inflicted.

As an illustration, observe the workings of the state license law. You and I had it put on the statute book. It operates against you and me, almost no one else.

It is a practical failure when it comes to the irregular. It does not deter the Chiropractor, the Osteopath, the Christian Scientist. They can flit from Maine to Florida with the season, but you and I cannot.

During this meeting a member appeared before a committee of which I am a member and complained of the new birth and death registration law. He said that his income the year preceeding the enactment of this law was $30.00 from the reports he sent in. Now he has the same report and gets nothing. I am not sufficiently familiar with this law to care to express an opinion for or against it, but the fact remains that good or bad, you and I caused it to be enacted.

If a four year medical course is instituted in West Virginia, it will be because of our demand for it. Practically no one else is demanding it, or will demand it, unless sufficient propaganda is put forth.

The large majority of the students graduated from any school must of necessity always be general practitioners. The work of the general practitioner is very much lighter than formerly. Among the reasons for this I would mention the following:

The multiplicity of irregulars. Some of us deny it but to me it seems clear. Only this week a well dressed woman owning her own home came to me direct from a visit to a negro barber who is a rubber, healer or what not. This negro, so she stated, had cured her neighbor when all the Elkins physicians had failed.

Sanitation, better living conditions. Not so very long ago a considerable percentage of the work of the general practitioner came from the treatment of typhoid fever. Now a year's work on typhoid in many cases would not purchase a tire for his auto. The same conditions exist as regards many other diseases.

Specialization has limited his work. Hospitals have cut it down.

Above all good roads have made unnecessary the number of physi-

cians once thought right and proper. Roads and autos have wonderfully increased his working radius. He can, almost before breakfast, take a trip in an auto that once on horseback in the mud would have consumed the entire day. Not only make it, but feel comfortable after having made it.

To the farmer of some years ago, going to town or to mill meant a a whole day, now it is often done after supper.

The argument that "everybody's doing it" therefore West Virginia should is incorrect and misleading. There are but eighteen state universities having full time medical schools.

Because other states have such schools therefore West Virginia can, is an argument which appeals to pride rather than to reason. I once heard Bourke Cochran in the House of Representatives reply to this argument. He said that we, the United States, could raise white elephants but he did not think it would prove to be a dividend paying investment.

You could not get an Elkins citizen to admit that there was not just as much opportunity for a world renowned medical clinic here as on the wind-swept plains of Minnesota, but the melancholy fact remains that so far we have not produced the goods.

If, as is claimed by the advocates of this four year medical school, we should graduate our own physicians, then, of course, the same would hold good as to lawyers, ministers, priests, engineers, mechanics and all others, yes even to the lower creation. A West Virginia farmer should, of course, buy his boar hogs here. Thank God we use more wisdom in buying hogs than we do in our voting or in some other of our public activities.

This is provincialism gone mad. Such arguments are years and years behind the times. Once each farm was self supporting, but the world has moved on.

We have had too much of this in West Virginia. Right now I understand a certain office in West Virginia is not permanently filled because it has been impossible to find a West Virginian to fill it.

Ye gods and little fishes, when I hire a doctor I never ask his religion, his politics nor where he comes from. I never even consider those things.

I understand a certain man who would be notoriously incapable is endeavoring to become the head of our University. I presume his chief claim will be that he is a native born son.

The same argument was brought forward when our new road law was passed. Such ideas, such inbreeding, will inevitably dwarf us. No school or people can become great, or remain great by any such process of reasoning. Away with the Chinese wall.

The argument that we have no right to call on other states to take our medical students will not bear close inspection. If it is true of medical students, it is also true for every other student. Our boys must not go to the wonderful technical schools of Pittsburg and Boston, our girls must not go to Peabody or to the Boston Conservatory of Music.

You and I must stay away from the Post Graduate Medical schools of our great cities; our clergy must

not go to the Union Theological Seminary or else it will be said West Virginia is too stingy to provide such advantages.

It is to laugh.

What a place the United States would be if this was carried to its logical conclusion, and each state lived within itself. I think this question was settled in 1865.

Even though it should possibly be embarrassing to the eighteen state universities having medical schools to admit students from West Virginia no such embarrassment could exist regarding the other sixty-three medical schools in the United States. However some of us are from Missouri and must be shown. I, therefore, addressed a questionaire to a number of medical schools and also wrote Dr. Colwell, secretary of the Council on Medical Education and Hospitals.

This question was asked: "Do you regard it as an imposition for students from West Virginia to apply for entrance to your institution?" Each and every one answered in the negative. Dr. Colwell said he knew of no such school.

In the Baltimore Sun for May 10, 1922, is an article written from Ann Arbor, Mich. This article states that there are now 331 students at the University of Michigan from foreign lands. Many of these are from China, Japan, Greece, Philippines, Armenia, Turkey. Thirty-two countries are represented. The University has appointed a faculty adviser for these students, also a "director of foreign students." A bureau of information has been installed. Special trips, entertainments, etc., are provided for them. In other words it looks as if the University of Michigan is rather proud of the fact that it can attract outsiders.

If they can do all this for the black brother, the yellow brother, the Christian brother, the Mohammedan brother, the infidel, then it seems unlikely to me that they will feel aggrieved when a West Virginian applies.

The cost of establishing a full time medical school has been estimated by Dr. Simpson as being one million dollars. The world has been on a prolonged drunk; we have hardly started to recover from our spree. Our children, perhaps even our children's children, will never see these debts all paid. We are groaning under a perfectly desperate load of taxes. I presume there never was a time from the very beginning of Colonial times when taxes were so high. I venture the prediction that the tax we physicians pay this year, the tax on the business we do, is but an entering wedge to what we will have to pay in the future. The road tax, the Virginia debt tax, the capitol tax and all the other innumerable taxes, it seems to me, gives us food for serious thought before asking for more. Think of that ever-growing multitude now feeding at the public trough and be sure we are right before increasing its number.

Is this an opportune moment to embark on any new expenditures whatever?

Twenty-three percent of all the medical schools in the world are located in the United States. We have now 83 schools turning out physicians. Last year there attended these schools 14,872 students, 874 more than the previous year. Does

this not look as if we might get along a little while longer before spending a million dollars to provide for still more students?

You have been informed that the cost is prohibitive. There are fourteen colleges where the cost is $125 per year or less; 46 schools where the cost ranges between $125 and $225 per year. Surely this is not prohibitive.

In conclusion let me urge you not to let pride and enthusiasm get away with judgment. Treat this matter with the same consideration you would a business matter involving a considerable proportion of your means. It deserves it. Don't mistake nightmare for vision; they are related—are not far apart. I have seen the day when my board bill looked as big as the German reparations; the day when I offered to work for another physician for less than would board me now.

I, too, have a vision; mine is that of a happy, prosperous, contented profession, working together hand in hand, striving to surpass each other only in professional achievement. This they cannot do where competition is so keen that all are fighting like dogs for a bone—where competition is so keen that the doctor's necessities compel subservience.

We allow the plumber to rob us because we fear if we kick we can't get him again in an emergency.

The doctor is kicked out on the slightest provocation. Right near my office four physicians have been in attendance on an ordinary case of illness. Three have been discharged, the fourth fears it. I doubt if any of them have been paid.

These conditions exist all over West Virginia. While they exist do we need any more physicians?

A PLEA FOR EARLY OPERATIVE MEASURE IN GALL STONES

Read Before the Cabell County Medical Society, Sept. 14th, 1922

By DR. CHAS. F. HICKS
Huntington, W. Va.

No doubt Surgery of the biliary apparatus gives more trouble to the conscientious surgeon than any other condition he is called to treat. The end results of surgery of the gall bladder and ducts are by no means always gratifying.

The percentage of cures following operations on the gall bladder varies. A definite cure occurs in approximately 60%; great improvement in 30%, and 10% have less improvement because of the extent of the disease or complications; therefore 40% is an appallingly high percentage, so to speak, not to have complete relief from all symptoms.

The mortality rate is not high. At the Mayo Clinic in a series of 1000 cholecystectomies in a series of 10280 operations on the biliary tract, the mortality rate was only 1.6%. The Crile Clinic a fraction less.

If the technic has been so perfected in these clinics, that a mortality rate has been reduced to less than 2%, it behooves us to study our patients more carefully, who are suffering with upper abdominal distress and ascertain if possi-

ble the nature of the malady, and encourage early surgical interference before such marked extent of the disease with its complications, that 40% go through life not a complete relief from symptoms.

It is the surgeon's aim to cure all the cases he operates on, not be satisfied with a temporary relief of symptoms. Of course there are many cases in which an immediate operation is imperative in order to save life, it is these cases that make up the majority of the 40%, not a complete relief from symptoms. Here we follow the late Dr. Murphy's dictim, get in quick and get cut quicker.

Gall stones and their sequelae is an interesting subject, and covers such a wide field of latitude that time would not permit to go into the details of all the complications, such as Hepatatis, Pancreatitis, Cholemia, common duct stones, spontaneous rupture of gall bladder, slow perforation of gall bladder into the bowel or stomach, abscess of the liver with adhesions incorporating omentum, bowel and gall bladder in a mass, so aptly defined by the Germans as Swine Fess.

The subject that should interest us most is the early symptoms of gall bladder diseases and advise early operative interference before secondary complications and infection has brought about marked signs or until nature hangs out the yellow flag of jaundice.

In a review of the cases of epigastric and right hypochrondiac pain the biliary apparatus is probably the first to be considered as the seat of the pathologic change. The other organs to be considered and differentiated are the Stomach, Duodenum, Pancreas, Appendix, and Kidneys.

The principal symptom in the diagnosis of gall stones is pain, and one of the most constant signs of gall bladder diseases is the inability of the patient to take a full inspiration when the fingers are placed up underneath the costal arch in region of the ninth and tenth ribs; this is called gall bladder block.

The cardinal points of diagnosis of gall stones and in order of their appearance would be pain, nausea, vomiting, local sensitiveness, and elevation of temperature if infection is present.

The pain is usually in the region of the stomach and not the liver, may radiate to the back subscapular region. The symptoms occur irrespective of time, but usually after meals. Gall stones disease is found to be much more frequent in women than in men. Ninety percent of married women who have gallstones have borne children.

The digestive disturbance varies from a light attack of distress, gas, and upward pressure, coming soon after food or at irregular times, often of a sudden onset and short duration, and eased by belching or regurgitation; perhaps by slight vomiting, such symptoms may pass away almost unnoticed. A more pronounced type in which the affection in the gall bladder is chronically advanced, there will be periods of irregular frequency and duration in which there is a daily complaint of flatulency, distress, epigastric pain, sour, bitter eructations, all associated more or less with the taking of

food, especially if infection is present or there is duct obstruction. The chronic gall bladder disease is in many cases accompanied by a dyspeptic syndrome, closely simulates the symptoms in chronic ulcers of the duodenum or stomach. This is the most frequent source of error in the diagnosis of painful upper abdominal lesions; the chronic ulcers furnish the typical syndrome of dyspepsia, the complaint is a chronic one, the nutrition is usually affected.

Ulcer is most common in the young, 15 to 30, while gall bladder diseases usually after 30. The regular characteristics of the period of attacks of ulcer, the day by day symptom, being from 2 to 4 hours after meals and eased by food, with the irregularity of the gall stone attack, not eased by food, suddenness of appearance and disappearance and apparent return of health until attack recurs later perhaps a month or more; we can with such a history arrive at a diagnosis in a majority of the cases. Another point of interest in these border line cases, of ulcer and gall stone disease, let the date of the first symptom decide, if the symptom began when the patient was young, say 15 up to 25 or 30, let the diagnosis of ulcer be favored, if late in life give that of gall stone the preference. However the hair-splitting differential diagnosis in these borderline cases is not the important point. These patients are surgical. Medical therapy has had its test. A surgical diagnosis and an experienced surgeon usually in early cases set things right.

If surgical interference is instituted early, it is possible that many of those who are not entirely relieved of their digestive disturbances would fall in the group of cures. It was the mortality and complications of delay that placed the early and interval operations for appendicitis on a sound surgical footing. To remove the disease while still in appendix and avoid the various complications was a logical conclusion; the same reason applies with equal force to the early operation for gall bladder diseases, remove the disease while still in the gall bladder.

Recurrences are much more common following drainage of the gall bladder, and a definite number of such cases will require secondary operation. Dr. Deaver reports that 4.07% of the cases in which he operated at one hospital, the operations were secondary. He says that the most common cause of recurring trouble after drainage was, stones in the gall bladder, and next in frequency were adhesions, and stones in the common duct.

Judd states from a review of their own cases, he believes that recurrences of symptoms were most often due to: First, the recurrence or persistence of infection; second, reformed or overlooked calculi; third, chronic pancreatitis. He follows this up by stating in reviewing the history of the patients operated on for recurrences in 1916 and 1917, they found over 10% of these secondary operations were for the removal of the gall bladder, which had been drained previously.

Cholecystectomy is the operation of choice by most operators.—(Ochsner, Willis, Deaver, etc.)

DISEASES OF THE FEMALE BLADDER

Read Before the Ohio County Medical Society
Wheeling, Friday, Nov. 3rd, 1922

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In presenting a subject with the foregoing title to the members of the medical profession who are not specialists, I do so with the thought that a discussion of the subject would be of particular interest to the general practitioner. It is he who sees these cases primarily and it is he who usually refers them to the specialist for diagnosis and treatment.

Not infrequently the gynecologist meets with difficulties in diagnosis due to the fact that symptoms referable to the bladder seem to be the most prominent of which the patient complains—the difficulties arising from the fact that it is not always with accuracy and precision that the etiologic factors can be discovered in the peri-vesicle organs.

With these ideas in mind a dissertation upon the diseases of the female bladder may bring to light some interesting facts which will be valuable to the diagnostician.

It will be remembered that the female bladder is a musculomembranous sac, thin walled, surrounded by connective tissue, partly covered with the peritoneum and situated in such a position as to be intimately in relation to the other pelvic organs. As pathology of the pelvic organs of women is such a common occurrence, it may be readily seen that secondary involvement of the bladder may be a natural consequence. In the portrayal of this subject, we will not consume much space or time with the gynecologic aspects except in so far as differential diagnosis becomes necessary. We will consider conditions of the bladder per se.

The most common of all the conditions of the female bladder is so-called Cystitis—a large number of women are referred to us with this diagnosis, who present a history of symptoms which have existed for years, even though they have had much treatment, some adequate and some inadequate. Many of these patients have given up all hope of ever being well; they accept a life of semi-invalidism as a natural sequence and try to make the best of a bad matter. They are real sufferers, having more or less constant diurnal and nocturnal pollakuria with dysuria, which progressively lowers their vitality and undermines their constitution.

As Cystitis is an accompanying condition in practically all of the diseases of the female bladder, it is far better to consider it as a group of symptoms rather than a distinct pathologic entity.

One of the most important factors more or less habitual with women, which plays a definite role in the etiology of cystitis, is the tendency of women to chronic constipation. Another feature to be considered is the habit which many women have regarding emptying the bladder and allowing the viscus to become markedly distended.

The principal etiologic factor of cystitis is the presence of bacteria, whose influence produces changes of the mucosa. Numerous cases under observation show that the bac-

teria found commonly are given in the order of their frequency: Bacillus Colon Communis, Staphylococcus, Micrococcus Catarrhalis, Streptococcus, Tubercle Bacillus, Pseudodiphtheria Bacillus.

Mixed infections are very common, in fact in all long standing and persistent cases, many varieties of bacteria may be isolated.

Cystitis implies an inflammatory process of the bladder mucosa, yet this never occurs without the presence of pathogenic organisms.

The statement has been made that Cystitis cannot occur without some contributing cause, producing a favorable condition for the growth of bacteria, yet we are satisfied that the presence of the bacteria is sufficient to eventually cause an inflammatory process provided they are in evidence for a long enough time, thus lowering the naturally strong resistance of the normal bladder mucosa.

It has been proven without peradventure of a doubt that the bladder will withstand infection for a long period, provided there is nothing to interfere with the normal mucosa. This fact is beautifully demonstrated in renal tuberculous lesions where the bacteria-ladened urine drains into the bladder for a long time without producing a bladder complication, but which develops if the renal condition is left unrecognized. The mere presence of bacteria within the bladder long enough and in large enough numbers, will produce changes in the normal histologic structures, with consequent inflammatory changes.

We are dealing with a very peculiar phenomenon, when the predisposing as well as the active cause of Cystitus is the invasion of the bacteria. Laboratory investigation has convinced us that certain metabolic products are developed by the growth of pathogenic bacteria which vary according to the media upon which they are growing and their environment.

The reason, therefore, may be fully understood why certain organisms, by changing their normal and natural habitat will produce new features, which might be considered as chemical in character, producing for example, sufficient irritation and mild mucosal trauma for their normal growth, prolification and development with the accompanying inflammatory changes which are productive of symptoms. The Colon Bacillus is an excellent illustration of this peculiarity.

There are many contributory causes responsible for Cystitis, via inflammatory involvements of the adjacent organs, renal disease as well as tumor, parasites and trauma are the most important factors:—chemical changes in the urine may produce Cystitis as the resulting mucosal irritation may be sufficient to render the field fertile for bacterial growth. Various types of parasites in the urine may have a similar action. All of these features must be considered in forming a definite opinion regarding the etiologic factors which are responsible for the Cystitis.

Bladder traumata occurring during severe labor, particularly instrumental in character is sufficient to lower the usual resistance of the mucosa so that bacteria will find a suitable environment for their growth.

Catheter trauma is an unusually common cause but a much more common reason for Cystitis is not due to the catheter so much as the trauma produced by the bladder distention. When it becomes necessary to catheterize a patient, the greatest care must be employed. Many of the patients who come to us date their trouble back many years to the time when it became necessary to catheterize.

The most dangerous instrument known to surgery unskillfully or carelessly employed is the catheter.

Remember that the distention is responsible to a great extent in the development of Cystitis, consequently it is our rule and order at the hospital that a patient failing to void urine for a period of eight hours, no matter what the cause, must be catheterized and every eight hours subsequently until the patient voids naturally.

A second rule and order enforced at the hospital or in private practice no less important than the foregoing is that no instrument of any sort be passed into the bladder unless it be followed by an irrigation or an instillation of anti-bacterial element, thus reducing to a minimum the chances of infection.

In looking further for etiologic factors of Cystitis, infections of the vagina, cervix and urethra must be considered.

The bladder is normally free from bacteria, the methods of their entrance into that viscus is a subject for accurate and careful study.

Their entrance into the bladder may be through the blood or lymphatic channels; they may pass directly through the bladder wall from infections of contiguous structures or gain entrance by means of septic instruments; they flow down with urine from infected foci of the upper urinary organs, but once their presence in the bladder is proven, Cystitis will be the result, provided a sufficiently long space of time elapses; naturally the process is more rapid if there are acute predisposing causes.

Cystitis may be divided clinically into acute, subacute and chronic Cystitis, but a more accurate division would incorporate the variety of infection as acute gonorrheal Cystitis, acute tuberculous Cystitis or chronic colon Cystitis.

As the diagnosis of the acute type of Cystitis is usually unassociated with difficulties, we will not burden you with their discussion. If the predisposing causes are determined and removed, the local affection will in the majority of the cases clear up if a proper line of treatment is instituted.

Your attention is directed to the chronic form of the disease, that of long standing, which has resisted all ordinary treatment. These patients are frequent in your practice and a discussion of this type of trouble we feel sure will be welcome.

Modern methods of diagnosis have opened up new avenues of approach, which are for the most part followed by accurate opinions. The cystoscope is one of the most important diagnostic instruments that we have in surgery.

An intelligent cystoscopic examination with proper interpretation of the findings will enable us to correctly determine the condition of the bladder and by so doing, in our estimation of the etiologic factors are of paramount value. The lab-

oratory findings are an important adjunct as the final diagnosis depends thereon.

For completeness, the clinical manifestation of acute Cystitis will be given, the cardinal features of which are frequent and painful micturition, together with the passage of turbid urine, containing pus, bacteria and usually blood. There may at times be considerable pain and tenderness in the supra-pubic region with marked constitutional symptoms at the onset, these latter last only for a day or two and accompany the stage of invasion of the bacterial elements. Notwithstanding the fact that the diagnosis of acute Cystitis is comparatively easy, it must not be forgotten that the condition may be secondary to certain contributory causes which may be vastly more important than the mere bladder involvement.

All cases of urinary frequency with pain must not be diagnosed acute Cystitis as these signs may accompany a condition of urinary hyperacidity or excessive crystalline elements in the urine. An absence of pus and bacteria will clear up the diagnosis.

The passage of an instrument into an acutely inflamed bladder is ordinarily contra-indicated, yet it becomes necessary in many cases for diagnostic purposes. An instrumental examination at such times is always very painful as the bladder is intolerant to both the instrument and the distending fluid.

Fortunately a fair proportion of the acute cases recover following adequate treatment, although a certain number will lapse into a chronic state—especially when the predisposing cause is not self limited and is more or less a permanent condition. Naturally, resolution will only take place in those cases where the damage done to the bladder mucosa is slight; where there is an ulcerative process, recovery is bound to be exceedingly slow.

Cystitis may apparently assume a chronic state from the beginning if we only consider symptoms as the distinctive line of demarcation between the acute and chronic forms of the disease. A differentiation must be left to the cystoscope, for the pathologic changes produced in the normal histologic structures of the mucosa, is so well marked between the various types of the disease that accuracy in diagnosis is certain. The cystoscopic pictures obtained in acute inflammatory processes are exceedingly interesting and varied. The mucosa may be involved locally or generally; usually, however, the particular involvement is of the trigonal region, in many cases, intensified as the internal urethral orifice is reached. One may also discover localized areas of redness while the balance of the bladder wall is normal, such areas on the posterior wall speak tentatively at least for secondary involvements of the bladder associated with pathology of the neighboring structures.

Acute conditions of the mucous membrane may be recognized cystoscopically by a well defined redness of the tissue, engorgement of the vessels, which seem to shade off and become lost to view as the area of involvement is reached. The mucosa surrounding the inflamed area for quite a little distance has lost its normal lustre owing to the marked epithelial desquamation.

The mucous membrane not infrequently seems to be thrown up into folds, owing to under distension of the bladder with fluid. The diagnostician must not confound this condition with trabeculae or with the thickened bands of mucosa as seen in old chronic types. The trigonal region when involved appears spongy and may bleed easily upon contact with the instrument. Even when associated with local anaesthesia, instrumentation of the acute bladder is very painful and at times practically impossible and can only be accomplished with a general anaesthetic. This is particularly true in tuberculous Cystitis.

Chronic Cystitis portrays an entirely different group of symptoms, as those seen in the acute type are lacking; there is no constitutional disturbance, nor tenderness to suprapubic pressure, at the same time the bladder is less irritable and rebellious to distention. The frequency, although a classic symptom is not marked, the pain is less severe but the urine still remains turbid, contains pus, epithelium, bacteria, but little blood.

The findings of the microscope, cystoscope and culture tube will prove the diagnosis. It is not uncommon that many of the chronically affected patients will present a history of numerous acute exacerbations which rapidly subside under treatment or lapse into a chronic stage.

As Cystitis may be secondary to a renal lesion, a recognition of the kidney pathology is necessary with adequate treatment before any headway can be expected from local treatments applied to the bladder. Renal disease may be suspected in that type of Cystitis which is long standing and relapsing in character. The microscope, the ureteral catheter and the culture tube and X-Ray should be the proper diagnostic aids. Renal affections of a suppurative character may produce symptoms referable to the bladder rather than the kidney. There may be pollakiuria with or without dysuria with little or no bladder disturbance.

The distinguishing factors between renal and bladder pathology must again be left to the microscope, the cystoscope, the urethral catheter and the culture tube.

In all the diseases of the female bladder, a cystoscopic examination coupled with a complete physical analysis will usually clear up the predisposing factors in the case. There may be a vesicle calculus, a tumor, diverticulum, suppurative renal disease as exciting causes. There may be a stricture of the urethra, a condition which is found rather frequently in the female and is recognized only by instrumentation. Strictures as small as 12 F. have been noted, producing obstruction to urination with distension and an accompanying Cystitis. New growths of the urethra as polypi, papillomata and caruncle may be responsible primarily for the vesicle condition.

Cystoscopically the bladder manifestations may be seen to be localized at a certain portion of the mucosa, the result of pressure from without and the result of pathology occurring in contiguous structures; as an ante-flexed uterus, a fibroid in the anterior wall, an ovarian cyst or tubal trouble. The cystoscope therefore, is an instrument of pre-

cision and indispensable in urologic diagnosis. Cystoscopic pictures of subacute and chronic forms of Cystitis must be carefully interpreted, as the mucosal changes conform to no single type. The changes between acute and subacute vary so little that it is difficult to draw a clear line of demarcation. In the latter group there is a decided loss of mucosal lustre, as epithelial desquamation is extensive in the subacute variety. There is evidence of pus and mucous, which is occasionally blood streaked, clinging to the bladder wall, which has been mistaken for vesicle tumor. There may be areas of beginning ulceration seen with a shaggy appearance of the mucosa surrounding it. The blood vessels have entirely disappeared in the inflamed area and the tissues are more edematous than in the acute type.

The picture of chronic Cystitis transmitted cystoscopically to the eye, differs entirely from that of other types—the lustre of the normal mucosa having completely disappeared, ulcerations being seen either localized in the region of the trigone or at the internal urethral orifice; these are usually elongated and run with the folds of the membrane, they are termed fissures of the bladder neck—Bremerman's Fissures. In the long standing cases the picture is still different; the entire bladder seems to be affected, the blood vessels are not evident or are indistinctly seen. The mucosa is covered with a film of muco-purulent material which gives the impression of marked thickening of the membrane. There may be evidence of old ulcreations or of fissures of the internal urethral orifice. The trigonal region may be distinctly edematous and the folds of the mucosa resemble trabeculae. These bladders will tolerate considerable fluid and instrumentation will develop little pain.

The appearance of the ureteric orifices may lead to a tentative diagnosis of trouble higher up. If there is an abnormal orifice on one side, its fellow being normal, then with a reasonable degree of certainty one can conclude that the renal affection is on the side of the abnormal ureteric orifice. This, however, is not pathognomonic as severe kidney lesions may occur when both orifices are absolutely normal and no kidney lesion may be found where there are distinct abnormalities of the orifices.

A correct diagnosis is the keynote to successful treatment, consequently great effort must be made to arrive at positive conclusions regarding the etiologic factors producing the bladder symptoms. Treatment depends of course upon the conditions found. In acute cystitis an elimination of the causes of the condition is essential. Local treatments to the bladder are in order with the patient at rest in bed on restricted diet and plenty of water. Hot applications over the suprapubic region, hot vaginal or rectal douches may give relief. If local treatment is employed, it must be done with great care and consist in gentle lavage by means of a soft rubber catheter. Boric acid or saline is the best fluid for irrigation, as it is not irritating. Do not distend the bladder but allow only a small quantity to run into the bladder and then drain, to be repeated until the wash returns clear; when this oc-

curs, an instillation is made of one of the mild silver salts or a few c.c. of a twenty percent mixture of the oil of cajuput in olive oil. This is cooling and seems to have considerable anaesthetic and germicidal properties.

Remember that the cessation of symptoms does not mean that the cystitis is cured. The patient should not be discharged from treatment until the urine is free from pus and bacteria.

Successful treatment of chronic cystitis depends absolutely upon the diagnosis; one must have an accurate knowledge of the etiologic factors, the condition of the bladder and the bacterial elements; without this knowledge, all treatment will amount to naught.

In outlining the treatment of chronic cystitis, one must consider the disease in the pelvis, the kidney and the bladder itself. The treatment of symptoms will not suffice. Pelvic disease must be eliminated, renal lesions must be treated, condition of urethra as polypi, stricture or papillomata must have the proper treatment.

Within the bladder itself may be found the exciting etiologic factor, tumor, ulceration, foreign bodies, diverticulae, etc., these must be eradicated.

Intra-vesical operation is the proceedure of choice in all bladder disease. Open operation is only necessary after intravesical manipulation fails which is relatively uncommon.

Benign tumors of the bladder, for the most part, are thoroughly eradicated with the high frequency current, the spark carried directly into the base of the tumor under the guidance of the eye, which is possible with the cystoscope. If the tumor is of large size or malignant in character an open operation for its removal may be indicated.

Foreign bodies such as calculi, blood clots, or materials that have been inserted into the urethra and lost in the bladder by the patient, may be all removed in the majority of cases, without opening the viscus. Litholapaxy is the operation of choice for the removal calculi. This can always be accomplished, provided that the stone is not too large to be grasped with the jaws of the lithotrite, or encysted or contained within the cavity of a diverticulum.

Ulcerations of the bladder as a consequence of cystitis are frequently found, and unless these are recognized and healed, the cystitis will continue and will not be influenced to any marked extent by local treatment. Ulceration of the posterior wall or trigonal region may be easily discerned with the aid of the cystoscope, but those of the internal urethral orifice, called fissues of the bladder neck, are difficult to recognize. A cystoscope that will give retrograde vision is necessary.

Ulcerations as a rule, no matter where situated, will require special treatment. We find that the high frequency spark is followed by rapid healing. In fissure of the internal urinary meatus, marked dilatation under a general anaesthetic will usually suffice; if not, then apply the high frequency spark. In only one case in our experience was it necessary to open the bladder for fissure. This case would not respond to the treatment already mentioned so it was concluded to put the bladder to rest by drainage.

If an examination of the bladder cystoscopically displays a diverticulum, and the cystitis prevails notwithstanding local treatment, the diverticulum must be eliminated. This can be done only by an open operation.

One of the most frequent causes of persistent cystitis, if not the most common cause, is pyelitis, either unilateral or bilateral. This condition is not recognized in the majority of cases, because there are usually no symptoms referable to the kidney. In our opinion this condition should be the first factor looked for in all long standing cases of cystitis where local treatments have been followed by failure. The urine collected by the urethral catheter, and examined microscopically will show pus, bacteria, and pelvic epithelial cells in larger or smaller numbers according to the severity of the infection.

Careful treatment must be instituted for the purpose of clearing up the pyelitis. This can best be accomplished by pelvic lavage. The ureteral catheters are passed into the renal pelves and with a ten c.c. syringe the pelves are thoroughly irrigated. One must be very cautious not to dilate the pelves too suddenly, as this may produce a severe colic which will require morphine to control. If one will not inject more than five c.c. at a time, allowing this to drain well before injecting more, the danger of colic will be minimized.

Various solutions may be employed. Silver nitrate from one to 12,000 to one to 500, according to the severity of the infection, argyrol or protargol may be used in the same strength as used in the urethra or bladder. There may be symptoms referable to the kidney; thus the diagnosis is overlooked. The pyelitis is usually secondary to the primary infection of the bladder.

How does the infection reach the kidneys? We believe that the most common mode of transmission of the infection is by ascension through the lymphatics, or through the blood stream. An ascending infection through the courses of the ureters we think uncommon, as there are strong arguments against this mode of transmission. The sphinteric action of the ureteric orifice prevents the bacteria from gaining entrance to the ureter; beside this, we should have the bacteria progressing against the current of the stream of urine and against the natural peristaltic action of the ureters. An ascending infection may be possible in cases of marked retention with dilatation producing a backing up of the urine along the course of the ureters.

At the same time that lavage of the pelves is done, which should not be oftener than twice a week, the bladder should be treated. This is best done with lavage, with formaldehyde solution, one in 8000, followed by an instillation of some one of the milder silver salts. It may be necessary to wash the bladder as often as once daily.

Vaccine therapy is of paramount importance in this type of infection, but we only recommend autogenous vaccines administered in progressively increasing doses once or twice a week according to the reaction.

Tuberculous cystitis is never primary and the original focus in the urogenital tract must be searched for carefully. Proper treatment must be given the primary focus or

there is no hope of clearing up the cystitis.

It has been stated that the removal of a tuberculous kidney will in itself cure a tuberculous bladder. We have never seen this occur. We feel that the bladder needs marked attention.

Tuberculin, vaccines for the mixed infection, and local treatments of the bladder must be vigorously administered, as well as a careful hygienic course of treatment.

We have endeavored to show that long standing chronic cystitis depends upon other conditions than the mere infection of the bladder mucosa, and unless we are particularly careful in our diagnosis, considering every contributing cause, our treatment will be worthless. In considering the treatment, we have tried to point out that every method is of importance in bringing about a permanent result and to render the urine pus and bacteria free. This must be done or our patient will go into a relapse at some subsequent time and our treatment will go for naught.

Do not be discouraged, as it frequently requires weeks to bring results, yet we have seen one treatment eradicate symptoms which have been producing great discomfort to the patient for years. Practically all of the diseases of the female bladder are associated to a great degree with the "symptom cystitis," results, therefore, can only be possible where the diagnostic features have been accurately and scientifically studied.

1919 Prairie Avenue.

POTT'S DISEASE — ITS UNSUSPECTED FREQUENCY IN ADULTS AND ITS COMPARATIVE DIFFICULT EARLY DIAGNOSIS

Read Before the Eastern Panhandle Medical Society at Martinsburg, June 4, 1922

By COMPTON RIELY, M. D.

On account of the entire subject of Pott's Disease being so extensive and our time being limited, I will confine myself to the following features of this disease, namely, its unsuspected frequency in adults and its comparative difficult early diagnosis. Since our text books lead us to believe that this is a disease chiefly of childhood and since most of the authors writing upon this subject have given us the impression that a hump has to be present for a positive diagnosis to be made, they have been misleading not only to the orthopedic surgeon but to the physician and surgeon in general, consequently I here wish to present a few rather constant findings in the study of quite a number of cases of early Pott's Disease in the adult as well as in children. I also wish to call your attention as to how the symptoms differ in children and adults as well as in the two sexes of the adult.

Now, for the purpose of emphasizing certain points I am going to ask your indulgence to quote from a former article on this subject which was read by me before the American Orthopedic Association at its meeting in Toronto, Canada, in 1906, and which was published in the January, 1907, issue of the American Journal of Orthopedic Surgery. "Referred pains

in adults are usually unilateral and seem to be more severe and remain in one location longer, so much so as to cause these patients to be treated for various diseases, such as rheumatism, paralysis or partial paralysis, gout, angina pectoris, neuritis, pneumonia, pleurisy, intercostal neuralgia, gastritis, gastric ulcer and cancer, hepatic and nephritic colic, floating kidney, cystitis, ovaritis, endometritis, appendicitis, sacro-iliac disease, coccygodinia, coxalgia, hysteria, sciatica, locomotor ataxia, neurasthenia, etc., many undergoing exploratory operations. the surgeons not finding the conditions they suspected and of course, not relieving the patient's suffering. I have under my care now several patients who have undergone operations for floating kidney, appendicitis, endometritis, coxalgia, etc., by general surgeons, without relief, in whom the X-rays have shown abscesses and who have since been relieved by mechanical treatment. I believe this disease is much more common in the adult than is generally thought and then when severe non-febrile symptoms that have not yielded to continued and varied treatment occur, one should be led to examine and x-ray the spine." After taking this stand I was very much gratified in 1912 to read in the December 28 issue of the Journal of the A. M. A. an article by Dr. Richard C. Cabot of Boston which was entitled, "Diagnostic Pitfalls Identified During a Study of Three Thousand Autopsies," in which article he stated, "Some of the most humiliating yet unavoidable failures of my experiences have been made in cases which showed post mortem the lesions of Pott's Disease. Only four of the seventeen cases that came to autopsy in this series were recognized in life. The clinical picture was usually that of an overwhelming infection, one of which was called septicemia from a pelvic abscess, (really a psoas abscess). In two cases there was a slight kyphosis which should have been noticed but which had been there for a long time without change and were ignored. In one case there was a gradual, even curve of the whole spine diagnosed by a skillful orthopedic consultant as spondylitis deformans. The ages of the thirteen patients whose disease was unrecognized were: 26; 51; 54; 81; 29; 44 ;49; 53; 50; 64; 65; 45; 40; the average being 50. In the four recognized cases the ages were: 34; 40; 34; 21; (average 32). The moral is that we do not look or ask carefully for evidence of vertibral disease in elderly patients because we associate the disease with youth."

So much for the unsuspected frequency of Pott's Disease in adults. The fact is that the average practitioner does not see enough of these cases to keep the matter of Pott's Disease foremost in his mind or to impress him with the fact that the pain is referred and may similate the pain of any disease or condition of the body and that Pott's Disease can cause a functional disturbance of many organs of the body such as the heart, lungs, liver, stomach, uterus, bladdre, muscles, etc.

My idea of an early diagnosis of this disease is before formation of palpable abscess, sinuses, angular kyphosis or the occurrence of marked sensory and motor disturbances. I will not confine my paper to Pott's

Disease as it appears in childhood, believing as I do that it is much more common in adults than is generally supposed, having occurred in my experience almost as frequent in adults as in children. The early diagnosis of this disease is fraught with many difficulties. It often exsists for years before there is a proper interpretation of the signs and symptoms of an existing Pott's Disease. The late symptoms and signs such as the angular kyphosis, loss of bowel and bladder control, palpable or visible cold abscesses, sinuses, hectic fever, anaesthesia, paralysis, etc., all point so clearly to the proper diagnosis that it is not necessary in this paper to consider them. I will therefore confine myself entirely to the early manifestations of this disease which if properly interpreted, point clearly to the correct diagnosis, perhaps years before the appearance of the more grave signs and symptoms. Few affections have a clinical history which varies so widely and appears under such different guises as Pott's Disease. Its referred pain and functional disturbances of organs simulate those of nearly every other disease. In making an early diagnosis, one should bear in mind that this disease manifests itself somewhat differently in children and adults and even in adults there are some differences in the male and female cases.

The principle causes of differences in the manifestations in children and adults are, 1st, The vertebrae of children are smaller, therefore have less tissue to be destroyed; 2nd, The proportion of animal matter to earthy salts is greater in the vertebrae of children than those of adults, therefore they can be more readily destroyed by the tubercular bacilli; 3rd, More rapid progress of the disease in childhood; 4th, The earlier appearance of the signs and symptoms in childhood; 5th, The less frequent neurasthenic complaints and hysterical symptoms in childhood; 6th, Referred symptoms and signs are more frequently unilateral in adults and persist so for a longer time; 7th, Slight evening elevation of temperature in children and a slightly subnormal morning temperature in adults, especially if the latter be in recumberancy; 8th, A greater organic functional disturbance in the adult and more pronounced neurasthenic and hysterical symptoms. The principal differences in the adult male and female cases are referable to disturbances of the functions of the pelvic organs in the female. The more frequent presence of the hysterical and neurasthenic symptoms and an increase of all symptoms at the menstrual epoch.

The important points in the early diagnosis of this disease are its gradual onset, the presence of and the variability of the referred pains which are usually worse at night and which may simulate the pain of any other disease and which are increased by exercise and jarring and relieved by rest in certain positions. These pains frequently awaken patients from sleep, causing night cries in children and night horrors and moanings in adults. Among other early symptoms are malaise, loss of flesh and appetite, inability to exercise the proper amount, peculiar attitudes and gaits and frequently there is a history of jerkings of the limbs, especially at

night. Usually there is a disturbance of the function of any or all of the organs of the body, these being best illustrated as follows: Stomach—pain simulating indigestion, hepatic and nephritic colic, appendicitis, peritonitis, etc., together with a nausea and even vomiting which at times is persistent and the time of its occurrence bears no relation to the taking of food. Intestines—pain in the abdomen simulating appendicitis and intestinal adhesions together with a persistent, chronic constipation. The uterus and ovaries — amenorrhoea, dysmenorrhoea, menorrhagia, irregular menstruation and pelvic pains similating cystitis, stone in the bladder, proctitis, vaginitis and prolonged menstrual periods with marked exaggeration of all the symptoms present. Bladder—frequency of micturation in all ages especially in adults in whom this symptom is rather marked and is exaggerated on exertion such as walking or being jolted. This symptom will also be manifested in children as nocturnal incontinence and even in adults there is a nocturnal frequency. Heart—giving rise to tachycardia and pain simulating angina pectoris, pericarditis, endocartitis, etc. Lungs —pain and disturbances in the rate and character of the respirations simulating pleurisy and pneumonia, There may also be a rather persistent dry cough similar to that of pulmonary tuberculosis. Nervous system—emotional and even epileptic symptoms together with a restlessness, ease of excitability and pain resembling neuritis and rheumatism in the adult and what is commonly known as growing pain in children. There is also an increase of the deep reflexes, especially the knee (ankle clonus coming on later) together with muscular twitchings, weakness and peculiar sensations such as slight numbness, pin prickings and the sensation that the member is asleep. Muscles—the characteristic attitudes of stiffness of part or the entire spine with a tendency to relieve the spinal column of weight, the characteristic gaits, the tendency to avoid jars, a stiffness, with small steps or a sliding gait. Eyes—in many cases where the lesion is high a photophobia is present. Spine—There is present one or more slight lateral angular diviations without marked rotation, the lesions being usually at one of these points and at the one in the region of the cord from which one's referred symptoms could arise and the concavity of which is towards the side of the most symptoms. The pelvis tilts further forward than normal and this malposition is tranmitted through the abdominal muscles and fascia, thus pulling on the ribs which become more oblique and closer together, flattening the chest antero - posteriorly. The lumbar spine also projects forward and the dorsal spine backward which throws the weight bearing line further forward and pulls that part of the spine above the seat of the disease further forward and downward, thus increasing the physiological curves of the spine and producing a viceroptosis which further aids in producing the functional organic disturbances.

The occurrence of any or all of those above mentioned symptoms should arouse the suspicion of Pott's Disease and as pressure on the cord or its columns from disease, injury

or growth at similar points might produce like referred symptoms and signs, one cannot be too careful in obtaining a complete history, in making a thorough physical examination and in securing a properly taken x-ray of the spine, and since a high disease might give only the symptoms of a low disease it is of prime importance to have the x-ray include the entire spine, thus eliminating many mistakes.

At the time when the x-ray machines were weak and had not the penetrating power of the present time, the early diagnosis of Pott's Disease was made by the finding of the abscess shadow and not by the locating of the bony destruction, but now, with our modern machines and equipment we are able to identify the small bone lesions themselves rather early in the progress of the disease. It is also important in many instances not only to have several plates of the entire spine taken antero-posteriorily but lateral views as well, thus making one plate a control for the others in both instances.

To summarize the common findings that may occur in a case of Pott's Disease, let us say in an adult female, we would have:

1. Malaise.
2. Loss of weight.
3. Loss of appetite.
4. Pain, referred to other parts of the body and usually worse at night.
5. Night cries, night horrors and restlessness.
6. Functional disturbances of organs below the seat of the trouble as nausea and vomiting, menstrual disorders of all types, frequency of urination, chronic constipation, etc.
7. Gradual or insideous onset.
8. Slight elevation of the afternoon temperature.
9. Peculiar gaits and attitudes.
10. Muscle spasms, manifested in abdominal and psoas especially.
11. Slight lateral angular diviations of the spine.
12. Flat chest.
13. Prominent abdomen.
14. Inrease of the physiological curves of the spine.
15. Forward tilting of the pelvis.
16. Increased reflexes.

In conclusion I would call your attention to the fact that these cases are often mistaken for other conditions on account of the referred pains and functional organic disturbances, especially in the adult and more particularly in females. On account of the long time necessary for the destruction of the bone to cause a hump, and on account of the variable symptoms and different causes that would produce pressure on the cord, the constant necessity of x-raying the entire spine and sacro-iliac joints. Also the great importance of a thorough history because this is the most dependable means of reaching a conclusion. Also the necessity of a rigid physical examination and a careful study and proper interpretation of the x-ray findings.

A CASE OF BRAIN TUMOR

Read Before the Eastern Panhandle Medical Society, Martinsburg, Dec. 13th, 1922

By W. A. WALLACE

Instead of discussing "Brain Tumors," which could be inferred from the program for today, I would like to present the findings in a sin-

gle case of brain tumor of local interest because the patient came to local physicians with the ordinary complaint of headache and dizziness.

The patient was a local boy, L. R. F., aged 21, who was by occupation a student. His chief complaints were:

1—Headache and Dizziness.

2—Faulty Vision.

(A) Present Illness

Previous to 1½ years ago was well and pursuing studies in Shepherdstown College and physically able to do usual farm work. One and a half years ago, began to notice an aching in his left eye. Since that time, has had three attacks of pain in his left eye, lasting about one-half to one hour, and two attacks of pain in his right eye, lasting about a half hour, and occurring at intervals of from three to six months.

During past three months he has had headaches, occurring almost daily, upon arising in A. M. and lasting only few seconds. At any time of day, a sudden change of position, as rising from a reclining posture, would cause a sudden stabbing pain in the right occipital region, lasting but a few seconds, and followed by an aching headache which would disappear as soon as the reclining position was resumed. With the idea that cool air was getting into his ear he would place pledgets of cotton in the canal and patient thought at first that this procedure relieved but later failed to do so.

On one occasion, two weeks ago while arising, the usual headache occurred plus a phenomena in which he lost his ability to balance, became dizzy and fell toward his right (?) side.

States that upon a change of position it looks as if flowers of wall paper move. No deafness. No tinnitus.

Since fall of 1921, has been troubled by vomiting. At that time often he would eat no breakfast as he was especially liable to vomit soon after rising. Some days he would vomit greater part of day and would suddenly stop and get up as if well. Sometimes he vomits with regularity every alternate or every third day. May 15th was last vomiting spell. Volume of vomitus small, preceeded by nausea. Drowsy, headaches are present. Sometimes feels a thumping in his head. About five weeks ago the patient began to notice his vision failing so that he had trouble in reading the newspaper.

Family history, negative.

(B) Physical Examination

Patient is an adult male of 21 in a good state of physical development and nutrition. The appearance of his eyes and facies deviate in some strange indefinite way from the normal.

Eyes:—Pupils are markedly dilated, equal, regular, symmetrical. Each pupil reacts to light and accommodation. However, with light, the pupil after contracting occillates and redilates while light is still constant.

There is a distinct binocular diplopia. Appearing greater on looking toward the left, lessening on looking toward the right, e. g. the

separation increasing as the left eye is abducted (left external rectus paralysis). There is also a marked and distinct nystagmus present, greatest as the left external rectus is abducted.

Chest:—Normal development, expansion, resonance, and breath sounds.

Heart:—Apex 5th interspace, 9.5 left. No thrills or murmurs. P2 accentuated and reduplicated. P/2 is greater than A/2.

Abdomen:—No pathology found.

Extremities*:—Definite absence of patellar reflex. No Babinski—ankle clonus—No Kernigs, etc.

Note:—Immediately after removing 40 c.c. of spinal fluid, knee jerk was present slightly The next day the reflex was still more present. In 5 days Dr. Williams found them normal. A few days still later Dr. Schlaepfer found them markedly increased.

(C) Dr. Morrison's Report

First saw patient May 22, 1922. Patient had ambling walk,—swayed, dizzy. Examination of eyes showed large pupils, reaction sluggish, media clear. Fundus shows congestion—choked disc. Vision in R. 20/40—vision in L 20/40, with correcting lenses some. Ears sensitive to air and plugged with cotton, saturated with medication. Five or six small pieces of cotton removed from both ear canals, which had evidently been there for some time. Ear drum slightly inflamed,—no other lesion. Nose, hypertrophic turbinate and slight deviated septum. Throat, chronic pharyngitis.

(D) Laboratory Findings

1—Urine, negative.

2—Blood count 8. Differential negative.

3—Spinal puncture 33 c.c. of a clear spinal fluid removed under pressure, containing 4 cells per c. milimeter, no increase of globulin, and reduced Fehlings.

(E) Dr. Williams' Report

My examination of Lewis Folk showed normal reflexes, left diodokineses slightly impaired, no hypotonia, no pointing past, inaccuracy and unsteadiness of the left hand, pupils dilated, although oscillating especially on the left side, evident stationary nystagmus looking to the left, optic disk obliterated by exudate and retinitis without hemorrhages.

Irrigation of left ear produced nystagmus in 62 seconds which ceased in 2 minutes, and slight dizziness lasting 2 minutes 10 seconds. Past pointing absent and scarcely any inclination of the trunk.

After irrigation of right ear for 4 minutes there was scarcely any nystagmus and no past pointing, although the patient inclined to the right ear. There was drowsiness and loss of memory.

These findings in conjunction with those you have already ascertained and the history indicate a lesion of the brain stem dissociating the vestibular paths and as syphilis was excluded demanded an exploration with a view to the discovery and possible removal of a neoplasm within the brain stem or pressing upon it from without.

(F) Dr. Schlaepfer's Report

Examination: Healthy - looking white man, 21 years.

Temporal: No sensory aphasia. No uncinate gyrus symptoms. No homonymous hemianopsia.

Cerebellar: Romberg marked. Patient falls to the left and partly to the right side. When walking, he has a tendency to walk to the right. History of sub-occipital tenderness and also sensitiveness present when moving the head. Sub-occipital headaches. Finger-finger and finger-nose tests show marked ataxia. Adiadochokinesia pronounced.

Reflexes: Superficial. Abdominals active on both sides. Cremasteric reflex on the left side more active. Plantar reflex on both sides equal. Deep: Periosteal forearm reflexes not elicited. Biceps, triceps, present and equal on both sides. Knee jerks very active on both sides. Achilles reflex present. No Babinski. No Oppenheim. No Gordon.

Impression: Tumor of the posterior fossa, cerebellum.

(G) Dr. Dandy
Report of Operation

The usual cerebellar exporation was made. Never have I seen such a dense, thick bone; the ordinary giant rongeurs were able to make but a feeble impression upon it. It was possible to remove only small bits at a time, and then with the greatest effort. Finally the area necessary was removed. The dura was under the most extreme tension. A ventricular puncture was made. The ventricle was dilated but the release of this fluid seemed to help the tension but very little so that it was felt that we must be dealing with a big tumor in this region, never suspecting that in addition to the the tumor we would be dealing with an acute arterial hemorrhage into the tumor. The dura was incised and the brain came rushing out. The incision was carried up and down quickly and across the midline. About this time, the patient stopped breathing but his pulse remained good. It was, of course, evident that we were dealing with a pressure cessation of respiration. A ventricle needle was inserted into the cerebellum in the hopes of finding a big cyst, but in spite of it, arterial blood shot out of the needle for several inches; this told the story that we were dealing with an acute hemorrhage into the tumor, without doubt brought on by the slight trauma produced to the dura from the removal of the over-lying skull. I have never seen such a thing before, but when one considers the density of the skull and the number of bites of the rongeurs necessary, it is conceivable that this little trauma so frequently repeated might do just this thing.

We were, of course, confronted, with an emergency and made a large opening into the tumor surface which was 2 cm. below the surface of the cerebellum. Blood escaped freely through this opening and we were then able to control it completely by packing with soft cotton. The cerebellum then resumed its normal situation instead of bulging through the dural opening. Search was then made for bleeding vessels and one was found in the most interior part of the tumor where the foramen of Magendie should be located. This was grasped and the bleeding then stopped.

The tumor was very soft and mushy, a characteristic subcortical

glioma. A handful of it was removed without any difficulty. Whether there has previously been a cyst in the tumor, one could not say.

It shoud be noted that the ventricular puncture before the dura was opened, showed the fluid slightly bloody; this told us, of course, that we were dealing with a little bleeding into the ventricle, though we did not suspect that the bleeding was more than what might have resulted from ventricular puncture. It now tells us that the tumor had grown directly into the fourth ventricle.

The tumor was one of a perfectly hopeless prognosis. It involved the entire vermis and most of both lobes with the exception of the surface area which was still intact and which did not betray the position of the tumor from the view which we obtained when the dura was incised. This, however, was a hasty view, because the dura was quickly cut on account of the intense pressure. It should be noted that as soon as the hemorrhage was released from the tumor, breathing became reestablished and continued throughout the operation.

The patient's condition was fair at the end of the operation, but he died 6 or 7 hours later. There was a sudden turn very shortly before his death, possibly a slow bleeding had again occurred in the tumor. Previous to this sudden turn, it seemed as though he would recover.

This case was brought to the attention of your worthy secretary because of the fact that his parents had their mind focused upon his apparent trouble with sticking cotton in his ears. It was my good fortune to be able to study the case with Dr. Morrison because vomiting was in the clinical picture. Often in the past, it has occurred, and often in the future it will occur that the eye specialist must occasionally be a neurologist, that the surgeon must occasionally be a practitioner of medicine, that the practitioner of gastro-intestinal disease must at times need be a urologist, and the heart specialist an obstetrician.

ANNOUNCEMENTS AND COMMUNICATIONS

THE SAN FRANCISCO SESSION

Applications for Space in Scientific Exhibit and for Time on Motion Picture Theater Program.

Plans are under way for the Scientific Exhibit to be held at the San Francisco session of the American Medical Association. Application blanks for either exhibit space or time on the Motion Picture Theater Program will be ready, March 1. Those desiring application blanks should forward their names and addresses to Director Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago.

American Medical Association Eastern District Official Tour to San Francisco.

The annual session of the American Medical Association will be held at San Francisco, June 25-29, 1923. The sub-committee appointed by the secretaries of the medical societies of the Eastern states

has arranged a twenty-five day tour to San Francisco and return, stopping at interesting and important points. All details of the trip will be taken care of, and all arrangements made by an experienced tourist representative, who will accompany the party and take entire charge of the tour. In order to make this tour a success, and to have a special train with all conveniences, including diners, special Pullmans and baggage car, it will be necessary to have at least 125 Fellows subscribe to the tour. The state medical societies of the Eastern states and of some of the Middle states have appointed, as a subcommittee to arrange for the tour, Drs. Edward Livingston Hunt, Wilbur Ward and Malcolm C. Rose.

The committee extends to all who contemplate attending the annual session a cordial invitation to join the tour, further details of which will be published later.—Edward Livingston Hunt, M. D., 17 West Forty-Third Street, New York City, Secretary, Medical Society of the State of New York.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

C. R. ENSLOW, M. D.
J. E. RADER, M. D. } - Assistant Editors
W. E. VEST

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

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THE MAN AND HIS JOB

By John L. Shory

I haven't much faith in the man who complains
Of the work he has chosen to do;
He's lazy or else he's deficient in brains,
And maybe a hypocrite, too.
He's likely to cheat and he's likely to rob;
Away with the man who finds fault with his job.

But give me a man with the sun in his face,
And the shadows all dancing behind;
Who can meet his reverses with calmness and grace,
And never forget to be kind;
For whether he's wielding a scepter or swab,
I have faith in the man who's in love with his job.

(From the March-April, 1922, number of Trained Men.)

Often we wonder why it is that members of our profession seem to hate it so and try in every way to discourage their children from all ideas of following in their father's or mother's (as the case may be) professional footsteps.

It is hard work surely. No conscientious physician can find anything easy (or soft) about his life's

work. An honored, loved and successful physician when consulted as to the advisability of his nephew studying medicine tersely said, "It is the most wonderful of all professions but the d—dest poorest way I know of to make a living."

Is it?

If one does love the work and his fellow men it is hard to see how it can be a poor way to make a living. Why can one not be a success. True he may never be rich in the sense of being a millionaire. Yet is that all of success? Is it a true measure of success? Money is not all nor even the greater part of success.

Still even by the measure in a financial way a physician who loves his profession and his fellow men can be. He may never achieve the million but he can have an ample competence and lay aside for the rainy day and for that period when he can no longer do the heavy duties of long hours without rest and so on.

This can be done honestly too. It is not essential that one do criminal practice, nor that one operate for large fees unnecessarily rather than for diseased conditions. Nor that you be a hard-hearted Shylock when it comes to doing work for God's poor or the poor devils.

These thoughts have come as a result of reading again an article claiming that the average income of physicians is $700 annually and then seeing the little poem which appears above.

About that seven hundred dollar annual income. My private opinion is that it is all tommy-rot. Some of us are either blessed or cursed with curiosity. Personally we have quite a large acquaintance throughout the State and for several years have been quite a doubter of this seven hundred dollar myth. There may be physicians in West Virginia whose annual income does not run over this amount in dollars or their equivalent. If so I have never found him and I've made myself a nuisance sometimes asking too personal questions. My friends can understand now what I've had in mind.

One thing more—that is about loving your fellow men. Make them pay an "honest" fee if they can do so and they will love you more. If they can pay and won't, then they are the devil's poor. Let the devil love them and take care of them. They will go to some "ismist" or "ist" or "er" and he or she or it will get their pay.

But don't sit or stand or lie around and say there is nothing to the practice of medicine. It is the noblest and most glorious of all professions, and if we will only adopt business methods as individuals and cease our backbiting and throat-cutting tactics, we can not call it strategy, one of the best paid.

A successful man puts his trust in God, but works like the devil.

KEEP YOUR MIND WELL

Often we hear people remark, when they learn of some friend who has gone insane: "Oh, how terrible—death would be better than that!" Such statements have been made through the centuries, and until recently not without a great deal of truth. But times change. Even the grouch who insists the world is going to the dogs cannot deny that

great progress has been made in health matters, especially in the last 50 years. Insanity is a matter of health, as much as tuberculosis. It is no longer the mystery it used to be when it was thought that to become insane was an everlasting doom which some awful fate had placed upon a person. To be accurate, we should not speak of insanity, but of mental diseases. That change in wording shows the progress that has been made. A person who is mentally diseased is today in this State cared for in a hospital, attended by a trained nurse, treated by a doctor, and in many cases cured, just like a person who is ill from any bodily disease. In the same way, insane asylums with their padded cells and straight jackets and their hopeless atmosphere are a thing of the past in this state at least, and in their place we have modern state hospitals well deserving of the name hospital. About one-fourth of all the mental patients who are admitted to the New York state hospitals each year for treatment are cured and nearly an additional one-fourth are so improved as to render it possible for them to return to their homes.

Mental disease is not the tragedy it used to be. It is often curable. Much of it is preventable. Many, if they could have the chance to receive early treatment when the first signs of their mental trouble appeared, could be restored to full mental health without ever entering a hospital. Recoveries are in direct ratio to the promptness with which treatment is begun. That opportunity for mental health which a previous generation did not have is now placed almost at our very doors. Sensible people are overcoming any false pride they may have had about consulting the mental clinic. A broken mind is not more reprehensible than a broken leg, and it requires equally prompt treatment.

Our mental machinery should not be neglected. When it needs repairing, we should go to the man who knows how to do it right, in other words, the skilled specialist—and go promptly.—N. Y. S. D. of H.

WHY DO YOU NOT HELP?

Beginning with the January issue your medical journal increased the number of pages of reading matter from forty to fifty-six. Or had any of you noticed this? The size of the pages has not as yet been increased. This, along with a number of other matters regarding the publication are to be taken up with the Council at the next meeting in Beckley.

In the past few months there has been a marked effort on the part of a few of the correspondents over the state to help awaken the interest of the readers to our own affairs. By this I mean sending in the reports of the meetings and of news notes. In this issue you will note the marked dearth of these particular features. I miss them. How do you fellow members feel on the subject?

It is a rather discouraged feeling which at times permeates the editorial sanctum. Just a kind of "what's the use of trying for no one seems to care" idea.

We frequently hear of criticisms of the Journal because of its shortcomings in this, that or the other respect. These things usually come

in a round-about way by word of mouth. Why is it that they are not written about to the editor with suggestions as to some method of correction?

Probably each one of you has some one thing in mind that you think would make our Journal bigber and better. Why not write us about it?

I find that when it comes to criticism physicians (like all the other members of the human race) seem to be infected with the Bacillus of Vocabularic Dysenterry. So far as constructive assistance and advice is concerned the clam is a chattering magpie by comparison. So, why do you not help?

MEDICAL LEGISLATION

The fact that the law making body in our State Government meets biennielly may have some bearing on the law making sprees which occur with us every other year.

To judge from the number of bills which have been presented before the two houses of our Legislature, there was quite a preliminary celebration. Now comes the actual work of sifting out the wheat from the chaff. It looks as if there was going to be quite a job of milling to be done.

The physicians should familiarize themselves with all the proposed legislation which vitally affects the well-being of the citizens of the State. There are two bills especially which should be of interest to us, namely the one having to do with the establishment of a graduate school of medicine at our university and the other the bill of the chiropractors which will license them and give them their own Board of Examiners. These bills should be carefully gone over, and into, by each members of our State Association and then the members of the House and Senate should be interviewed.

This is another place where each member should do his part individually as well as give his earnest support to the efforts of the Legislative Committee of the State Association.

Do not delay to get in touch with the other physicians and go to work. It is important.

COUNTY SOCIETY REPORTS

McDOWELL COUNTY

On Wednesday evening, Dec. 13, 1922, the McDowell County Medical Society was handsomely entertained at Welch Hospital by Supt. A. G. Rutherford, M. D.

After a most tempting repast, planned by Mrs. Rutherford and the other ladies connected with the staff of the hospital, had been served and the guests were enjoying their cigars and cigarettes, Pres. W. B. Stevens, M. D., convened the Society in its regular monthly meeting.

The roll call found the following doctors present: W. B. Stevens, V. L. Weatherby, H. G. Camper, R. V. Shanklin, W. C. Hall, S. A. Daniel, C. R. Woolwine, G. W. Brewster, J. Clarke Killey, B. K. Lovely, H. L. Kirkpatrick, K. C. Thomas, W. C. Williams, J. Livingston, C. E. Stump, E. Vermillion, Phipps, Lilly, and J. Howard Anderson.

After the reading and approval of the minutes of the last meeting, clinical cases were passed over and

scientific papers were announced as the order of business.

Dr. H. G. Camper then presented an able paper on "The Importance of Routine Examinations." He developed his subject by the presentation of a series of case reports which clearly demonstrated that without such an examination the real source of the trouble would almost surely have been overlooked.

This was followed by a most masterly paper by Dr. A. G. Rutherford on "Peritonitis." He developed his subject in a most systematic and thorough manner. He pointed out under the head of Etiology almost every possible endogenous and exogenous source of infection. In touching Bacteriology he mentioned the fact that mixed infections were the rule and the most frequent offenders as Staphylococcus Albus, Bacillus Coli Communis, and Streptococcus. He even pointed out that the same organism seemed more virulent when derived from the ileum than from other parts of the bowel. As to Pathology and Prognosis he stressed the following factors:—

1. The character and location of the original lesion.

2. The amount of virulence of the infection.

3. The rapidity of its introduction.

4. The resistance of the individual.

After covering most thoroughly the Symptomatology, he gave as the cardinal points of Diagnosis:—

1. Pain—character, location and persistence.

2. Nausea and vomiting—character.

3. Tenderness and rigidity—location, development, and character.

4. Pulse and temperature.

5. Blood count—Leukocyte and differential.

As to treatment he stressed the handling of the patient and urged Fowler's Position, and sounded warning against purgation. Operation when practicable, as soon as possible, with closing of perforation and adequate drainage. When operation not possible, deep and prolonged morphinization. And in either case, absolute prohibition of anything whatsoever by the mouth.

These papers were ably discussed by Drs. Killey, Shanklin, Weatherby and Anderson.

Under unfinished business the applications for membership of Drs. H. G. Gerbig and C. E. Stump, both of Welch, W. Va., were presented with recommendations of censors. They were unanimously elected as members of the Society.

This being the last meeting of the year the following officers were elected for the ensuing year:

Pres., C. R. Woolwine, Davy, W. Va.

Vice Pres., Victor L. Weatherby, Welch, W. Va.

Secy., J. Howard Anderson, Marytown, W. Va.

Treas., J. L. Sameth, Welch, W. Va.

Censor, A. G. Rutherford, Welch, W. Va.

Delegates to State Association, W. B. Stevens, Eckman, W. Va., H. G. Camper, Welch, W. Va.

Alternates, H. L. Kirkpatrick,

Deegans, W. Va., J. Clarke Killey, Vivian, W. Va.

A rising vote of thanks was then unanimously tendered Dr. and Mrs. A. G. Rutherford for the hospitality so handsomely extended to the Society.

There being no other business the meeting adjourned.

STATE AND GENERAL NEWS

McDOWELL COUNTY

J. HOWARD ANDERSON, Reporter

Dr. C. E. Stump, formerly of Greenbrier Medical Society, is now located in Welch as an assistant to Drs. Hall and Daniel and has identofied himself with McDowell County Society.

Dr. H. A. Gerbig has recently become a member of McDowell County Medical Society and is located in Welch doing eye, nose and throat work.

Dr. E. Vermillion, formerly of Harrison County Medical Society, is now located in Welch, W. Va., and is devoting his entire time to the practice of eye, ear, nose and throat work.

Dr. Geo. E. W. Hardy, formerly surgeon at Welch Hospital, has recently opened offices in the Krause building, Tampa, Fla., and is limiting his practice to surgery. Dr. Hardy is well equipped for his new venture for he spent three years in preparation for just this kind of work with Dr. Finney of Baltimore. We wish him abundant success.

Dr. A. J. Burkholder, formerly of Staunton, Va., and at one time a practitioner in West Virginia coal fields, is now located at Hensley, W. Va., as assistant to Dr. J. Howard Anderson. He succeeds Dr. D. H. McCall, who has accepted a practice in Raleigh county, W. Va.

Dr. H. A. Brandebury, 920 Sixth avenue, Huntington, who was slightly bruised when his auto was struck by a westbound street car at the intersection of Third avenue and Twelfth street, suffered no serious injuries as a result of the accident. Dr. Brandebury has resumed his practice.

Dr. Albert Kunst, prominent physician of Parkersburg, for several years in charge of Baltimore & Ohio work within the state, and twice superintendent of the state insane asylum, at Weston, died suddenly of an attack of heart disease.

Dr. Kunst had been about the house during most of the day and appeared to be in his usual health. He was seen going to his room about ten minutes before he was found lying dead on a couch where he had evidently placed himself for a rest.

Dr. Kunst was at one time president of the West Virginia Medical Society, connected with the board of pension examiners in the state for a number of years, and acted superintendent of the Weston hospital for thirteen years. He was also largely connected with banking and railroad interests in the state. His first wife was Miss Mary H. Camden, of Parkersburg, whom he married in 1875. His present wife, Mrs. Loretta Kunst, was in Cincinnati at the time of his death. He is survived by one son and a daughter.

Dr. O. O. Cooper and Dr. Broadus of Hinton, W. Va., are recovering from injuries sustained when an

automobile driven by Dr. Cooper plunged over a river bank near Belle Point.

The driver of the car was treated in his own hospital for two fractured ribs, while Dr Broadus is suffering with a broken collar bone. Condition of neither physician is regarded as serious.

Dr. Cooper's machine went beyond his control when he turned off the highway to avert a crash with an oncoming automobile.

It was stated that the machine was halted in its downward plunge when it ran into some heavy brush and small trees, stopping several feet from the river's edge.

Consolidation of the Sheltering Arms Hospital at Hansford and the Charleston General hospital was announced in letters sent out by Bishop W. L. Gravett, recently.

The agreement between the two institutions will go into effect about February 1 and present plans call for two buildings on a centrally located site in Charleston. One of these would be erected and owned by the Charleston General hospital, private institution of which Dr. J. E. Cannaday is the head, while an adjoining building would be erected and owned by the incorporators of the Sheltering Arms hospital. In this latter building space would be reserved for conduct of the social service work.

The new institution will be known as the Charleston General hospital, and the second building will be called Bishop Peterkin memorial, in honor of the First Protestant Episcopal bishop of the diocese, who founded the Sheltering Arms hospital. The staff of the two hospitals will be merged, Dr. J. Ross Hunter, chief surgeon of the Hansford institution, taking a prominent place in the new organization.

The announcement by Bishop Gravatt points out that when the Sheltering Arms was established 33 years ago, there was no other hospital between Richmond and Cincinnati, but that since that time the advent of numerous private institutions at Charleston and other centers of population has relieved the necessity for such an institution while those in the cities have advantages in carrying out this mission. For this reason the merger was decided upon to enable the church to turn its resources toward the social service work for which it was the better fitted.

The Sheltering Arms hospital, expenses of which has run to about $80,000 a year, has a capacity of 116 beds, and recently has had an average of about 50 patients. The Charleston General hospital at present is operating in a building leased from the city with a capacity of about 125 beds. The combined buildings now planned will have a capacity of about 150 beds, according to the plans announced by Rev. A. N. Clayton, rector of St. John's church and one of the board of directors of Sheltering Arms hospital.

A state board of chiropractic examiners would be created under the terms of a bill introduced in the House of Delegates Friday, by Delegate George Neal of Cabell. The bill, which is known as House Bill No. 221, was referred at Mr. Neal's request to the committee on the judiciary.

The proposed board would consist of three members, each of whom would have to be a residence course graduate of a chiropractic school and a practicing chiropractor.

Authority would be conferred on this board to issue licenses to chiropractors after examinations on the subjects of anatomy, physiology, symptomatology, chiropractic orthopedy, principles of chiropractic and adjusting nerve tracing, chemistry, hygiene and chiropractic analysis.

The examinations would begin on the second Monday in January and the second Monday in July each year.

MEDICINE AND SURGERY

THE RELATION OF FIBROSIS AND HYALINIZATION TO LONGEVITY IN CANCER.

By WM. C. McCARTY, M. D.
Rochester, Minn.

Fibrosis and hyalinization being fairly frequent in the cases of cancer of the breast and the rectum, a study of these was made in an effort to throw some light on the problem of the defensive mechanism in cancer. Two series of patients, all of whom had died of recurrence or metastasis following radical resection, were studied, from which the following generalizations may be made:

1. The frequency of fibrosis in association with cancer of the breast and rectum is practically the same in both organs.

2. The frequency of hyalinization in association with cancer of the breast is greater than in cancer of the rectum.

3. When fibrosis is present in association with cancer of the breast and the rectum the post-operative length of life is increased 34%.

4. When hyalinization is present in association with cancer of the breast and rectum, the post-operative length of life is increased 40%.

5. When the two factors (fibrosis and hyalinization) are present in combination in association with cancer of the breast and rectum the post-operative length of life is increased over 50%.—F. C. Hodges.

RESUSCITATION BY THE INTRA-CARDIAC INJECTION OF EPINEPHRIN

Julius Gottesman, New York, (Journal A. M. A., Oct. 14, 1922), reports the case of a man, aged 73, with generalized arteriosclerosis, who developed severe pain in the right leg due to trophic changes. The pain continued to be very severe, and, September 20, amputation of the affected extremity under spinal anesthesia was attempted. The injection of 10 c.c. of 1 per cent solution of procaine into the spinal canal was followed almost immediately by drowsiness, cyanosis and shallow respiration. The heart action remained good for about five minutes, when the patient became unconscious, respiration ceased, and the pulse and the heart sounds could not be detected. Artificial respiration was begun and various cardiac stimulants, including caffein, camphor and epinephrin, were given hypodermically, but without effect; the breathing had ceased and the heart action seemed to have ceased. Twenty minims (1.2 c.c.) of epinephrin, full strength, was then in-

jected into the left aurical by puncture of the chest wall between the left third and fourth ribs, the position in the cavity of the heart having been determined by aspiration of blood. There was immediate reappearance of the radial pulse and of feeble respiratory efforts. This was followed by the return of the heart sounds. The cyanosis was gradually replaced by normal color, and within a few minutes, respiration became regular, the heart action good, and consciousness was restored. After this the patient made an uneventful recovery from his symptoms.

FEWER MOTHERS DIE FROM BLOOD-POISONING

During the first eight months of 1922 only 134 deaths from puerperal septicemia, or blood poisoning of mothers at the time of childbirth, were registered in New York State outside of New York City. According to Dr. Otto R. Eichel, Director of the Division of Vital Statistics of the State Department of Health, there were 168 deaths from this cause during the corresponding period of 1921, indicating a reduction this year of 20% in this, the most preventable of the causes of maternal mortality. This decrease in deaths of mothers is accompanied by a marked increase in the number of reported cases of puerperal septicema, due according to Dr. Eichel not to increased prevalence of the disease but to better diagnosis and reporting of this condition under the stimulus of the efforts made to reduce the mortality from this cause. It is noteworthy that there has been little or no change this year as compared to 1921 and 1920 in the death rate from other and less preventable causes of mothers' deaths, such as hemorrhage, convulsions and accidents of pregnancy. This would seem to indicate that the recent widespread consideration of the need of saving mothers' and babies' lives which resulted in the enactment of the Sheppard-Towner Bill by Congress and the Davenport-Moore Law in New York State is already bringing about better care and attention to cleanliness and the prevention of blood poisoning in connection with childbirth. The fact that the death rate from this cause increased during the first part of 1922 indicates that it will almost certainly be low for the whole year since it has been observed that puerperal septicemia is definitely more prevalent during the winter months. When the educational activities, which are now being promoted by the Division of Maternity, Infancy and Child Hygiene, have taken full effect it is believed that many more deaths from this cause will be prevented.

TOXIN-ANTITOXIN IMMUNIZATION AGAINST DIPHTHERIA

The results of twenty-five years of experimental and practical investigation of the immunization effect of toxin-antitoxin injections and the value of the Schick test as presented by William H. Park, New York (Journal A. M. A., Nov. 4, 1922), are: Three injections, 1 c.c. each, of a suitable toxin-antitoxin mixture spaced one or two weeks apart, will cause about 85 per cent of susceptible children or older persons to develop sufficient antitoxin

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to give the negative Schick reaction and produce marked, if not absolute protection against diphtheria. The duration of the immunity in at least 90 per cent of the children is for more than six years and probably for the remainder of life. There seems to be no defference in this respect between these, and those who develop antitoxin naturally. Toxin-antitoxin injections should not be given within two weeks after an injection of antitoxin; otherwise the toxin is slightly overneutralized and the resulting development of antitoxin is lessened. Mixtures made from old toxin and antitoxin are fairly stable and may be used for a period of one year. A toxin-antitoxin mixture of stabilized materials which is safe when it leaves the laboratory cannot become more toxic on being kept. The Schick test is an extremely reliable means of separating those individuals who have antitoxic immunity from those that have none. No child should be pronounced immune from diphtheria because of having received three immunizing injections of toxin-antitoxin. A negative Schick test is absolutely necessary before one can properly make such a statement or issue a certificate. The toxin-antitoxin injections are inadvisable before the age of 6 months. It is probably safe to wait until the infant is 9 months old and then to give the injections at the first suitable occasion. During the first three years, there is almost no annoyance from the injections. As the child grows older, the danger from diphtheria gradually lessens, and the percentage of those developing annoying local and constitutional reactions slowly increases. There appears to be no difference in the degree of immunity between those individuals who have developed antitoxin from natural causes and those who did so because of the stimulus of the toxin-antitoxin injection. Institutions in which the children have been given the immunizing injections have been remarkably free from diphtheria. Among school-children who have been injection there have been less than one fourth as many cases as among the untreated children, and these cases have been of less severity.

INTRA - ABDOMINAL HEMORRHAGE FROM STOMACH DUE TO OSTEOPATHIC TREATMENT: REPORT OF CASE

One of the possibl dangers of indiscriminate mechanotherapy is illustrated by the case reported by B. J. O'Neill and W. W. Crawford, San Diego, Calif. (Journal A. M. A., Nov. 4, 1922). A woman, aged 22, eleven hours before admission to the hospital had been seized with severe abdominal pain and slight vomiting shortly after eating radishes, which had always disagreed with her. A person calling himself an osteologist, and claiming to be an improvement over the osteopath, was called in, and subjected her to vigorous abdominal massage, followed by manipulation of the neck. To accomplish this, he threw her face downward over his knee, striking her abdomen against his knee. This caused an immediate increase in the abdominal pain. This continued, became colicky in character, and vomiting increased. The patient was taken to the hospital for

treatment. A diagnosis of probable ruptured appendix was made and immediate laparotomy undertaken. When the abdomen was opened, slightly to the right of the median line, there was a gush of bright red blood and about 3 pints (1.5 liters) of fluid and clotted blood was removed with the fingers, swabs and pump, the clots being of varying consistency, none more than a few hours old. Careful exploration of the abdomen and pelvis revealed no abnormalities except a bleeding point on the greater curvature of the stomach, from a ruptured branch of the gastro-epiploic vein about half an inch from the border of the stomach, at the point at which the stomach crossed the spinal column. This was tied with fine catgut. Recovery was uneventful.

EXERCISE TOLERANCE IN HEART DISEASE

In persons recovering from protracted infectious diseases, the time to permit any physical activity and the amount of increase advisable from day to day can be intelligently determined only by an exercise tolerance test. If persons in whom heart disease has been diagnosed, who show nothing abnormal except a systolic murmur over the heart, tolerate vigorous exercise, it does much to dissipate the apprehension they may feel about taking exercise and strengthens the physician's conviction that he is dealing with a normal heart. This, perhaps, will make unnecessary the advice so often and so solemnly given these patients to be cautious about physical activity. Persons with valular disease show the greatest variation in their exercise tolerance whatever the exercise may be, swinging dumb-bells, climbing stairs, walking, etc. Only by determining their exercise tolerance, says Theodore B. Barringer, Jr., New York (Journal A. M. A., Dec. 30, 1922), can the amount of physical activity most suitable for them be prescribed. There are certain patients with advanced mitral stenosis who have a very small exercise tolerance. These patients have to be extremely careful about their physical activities. They improve but slightly, or not at all, on graduated exercise, and they have to take digitalis almost continuously. Patients with aortic valve disease stand physical acticity, as a rule, better than those with mitral stenosis. When they show a persistently low exercise tolerance, the duration of life is generally short. Barringer believes that as time goes on the validity of the exercise tolerance test for determining the condition of the heart's functional capacity will become generally recognized, and our knowledge of heart disease will be much enriched through the facts acquired by this comparatively new method of cardiac diagnosis.

CHILD HYGIENE AND PRIVATE PHYSICIAN

There is just as much need of health work among the children of the middle and well-to-do classes of society as among those of the poorer classes, says Borden S. Veeder, St. Louis (Journal A. M. A., Dec. 30, 1922). The best results can be obtained only if there is direct and constant supervision of the child through infancy and child-

hood by one physician, who sees the child in sickness as well as in health, and who has an intimate and personal knowledge of its parents, its home life and daily environment, its play and companions. Without a full knowledge of all of these factors, the value of direct supervision is limited and handicapped. Furthermore, this supervision must reach the children of all classes, and must not be limited to the economically dependent. The person in the ideal position to supervise the health and welfare of the infant and child is the private physician—the man in general practice. If this is true, the question naturally arises, Why, then, is this work not done by the private physician? Why the necessity for the welfare clinic or conference? The answer is simple: Unfortunately, the vast majority of physicians in private practice are not qualified to supervise the development of the infant and child. Few recognize its importance; fewer still are interested, and, most important, even fewer have been trained to apply in general practice the methods which have met with such success in infant and child hygiene work. The fault or blame lies in the training and education of the private physician. In the past, and the same holds to a large extent at present, medical students have been trained to think in terms of disease rather than of health, and teaching, which has been almost entirely in hospitals or dispensaries, has been directed almost exclusively to the recognition and treatment of pathologic conditions. Such teaching as the student has received in hygiene or health has been of an abstract nature and not concretely applied to the individual. The lack of knowledge on the part of the private physician in regard to the hygiene and development of the infant and child is the fault of the physician's training, not of the physician. There must be a distinct change in the character of pediatric teaching, and this change is already taking place in better medical schools. For example, instead of spending hours over the classification and pathologic physiology of the nutritional diseases of infancy, the point that must be emphasized and driven home is the care and feeding of the normal infant: the prevention of disease must be stressed equally with the pathogenesis, diagnosis and treatment. When this is done, physicians will be interested in giving ideal supervision to the infant and child.

SOMETHING ABOUT HICCOUGH

Hiccough is a very disagreeable affliction even though it sometimes merely causes temporary annoyance, for the reason that it is transitory. Occasionally, though it becomes distressing and often serious. It has happened that death from exhaustion has been due to a long-continued hiccough.

According to Osler ("Practice of Medicine"), W. Langford Symes groups the causes of hiccough into:

"1. Inflammatory, seen particularly in affections of the abdominal viscera, gastritis, peritonitis, hernia, internal strangulation, appendicitis, supperative pancreatitis, and in the severe forms of typhoid fever.

"2. Irritative, as in the direct stimulation of the diaphragm when

very hot substances are swallowed, in disease of the esophagus near the diaphragm, and in many conditions of gastric and intestinal disorder, more particularly those associated with flatus.

"3. Specific, or, perhaps more properly, idiopathic, in which no evident causes are present. In these cases, there is usually some constitutional taint, as gout, diabetes, or chronic Bright's disease. I have seen several instances of obstinate hiccough in the later stages of chronic interstitial nephritis.

"4. Neurotic, cases in which the primary cause is in the nervous system; hysteria, epilepsy, shock, or cerebral tumors. Of these cases, the hysterical are, perhaps, the most obstinate."

In the Journal of the Oklahoma State Medical Association for June, Dr. Forest Dutton, of Tulsa, Oklahoma, reported a case of singultus which, undoubtedly, belongs into the first category of Symes' classification. Dutton justly declares that it is uncommon to observe some twenty or more cases of hiccough in a community at the same time. He says:

"In the fall of 1917, my attention was drawn to an unusual number of cases of hiccough in my practice. Fifteen cases developed in the short period of one week. On inquiry, I found that Dr. N. W. Mayginnis had observed four cases, Doctor Brody three, and Doctor Trainor three. All these cases developed in a period of ten days, and were limited to one district.

"Clinically, these cases presented, chiefly, gastrointestinal symptoms, but the nervous system was greatly involved. The gastrointestinal derangements of epigastric distress, nausea, vomiting, sometimes diarrhea and sometimes constipation with jaundice, dryness of throat and mouth, and choking attacks, with viscid secretion; and occasionally the nervous symptoms, as dimness of vision, mydriasis, diplopia, suffocating sensations and extreme weakness, were preceded by auras of gastric tension and hiccough. Temperature and pulse were normal or, in the greater number of cases, sub-normal. Two cases were fatal; the other patients recovered slowly. The singular fact in these cases was, that the hiccough continued practically during the entire period of the illness.

Investigations revealed that those affected had eaten a popular brand of sausage. This in every case was followed within twenty-four to forty-eight hours with the symptoms described. In my cases, the intoxication was found to be due to the B. botulinus. The others I did not have an opportunity to observe so closely, but from history obtained, I infer they were due to the same cause.

"Since 1917, I have had an opportunity to study a number of these cases. The clinical evidence in all of them, after elimination and deduction, convinces me that this endemic of hiccough was due to the B. botulinus."

We are familiar with the persistent hiccough that is observed occasionally in the terminal stages of infectious troubles affecting particularly the abdominal organs. We are under the impression that Doctor Dutton's opinion as to the etiology of the affection in his cases is correct. Still, it must be kept in

mind that it is not the B. botulinus or any other infectious virus as such that gives rise to hiccough. That, we take it, is to be referred more particularly to an intoxication affecting especially the nerve endings and traveling backward, possibly, to the nerve trunks. In botulism, we understand, toxin formation is brisk and the symptoms of intoxication are insistent. It is from that viewpoint that we probably must consider the cases reported by Doctor Dutton.—Clinical Medicine.

SYPHILIS OF THE MOUTH

William Allen Pusey, Chicago (Journal A. M. A., Oct. 14, 1922), states that there is a close relation between the tissues of the mouth and those of the skin. Their structures are very much alike, and they react to many pathologic processes in the same way. There are numerous systemic diseases in which there are eruptions on the oral mucous membrane as well as on the skin, and these oral eruptions are identical with those of the skin, except as they are altered by the peculiar local conditions to which they are subjected in the mouth. These facts are particularly well exemplified in syphilis. The skin and the mouth are the structures for which syphilis shows its greatest predilection, and the predilection is quite as great for the mouth as for the skin. It is probably true that syphilis occurs with as great frequency in the mouth as on the whole surface of the skin. Its frequency in the mouth, then would of itself make syphilis of the mouth a subject of great practical importance. Pusey discusses primary syphilis of the mouth—about 60 per cent of all extragenital chancres are chancres of the mouth, secondary syphilis of the mouth, such as mucous patches, smooth glossitis of early syphilis; condylomas; tertiary syphilis of the mouth—gummas, interstitial infiltrations, smooth atrophy of the tongue, sclerosis of tongue, leukoplakia and macroglossia and macrocheilia; congenital syphilis. The treatment of syphilis of the mouth is the treatment of the disease in general. The lesions of syphilis in the mouth heal with greater rapidity under specific treatment than do those of the skin surfaces. The late lesions of syphilis of the mouth yield promptly to specific treatment, whether arsphenamin, or mercury and the iodids, or both. For their healing, mercury and the iodids are all sufficient, although healing is somewhat more rapid when they are combined with arsphenamin. No local treatment of either early or late syphilids of the mouth is necessary beyond cleanliness and obvious rational measures. The only lesions that will not heal under specific treatment are those in which there is dead bone whose removal is necessary before cure can occur.

NEW AND NONOFFICIAL REMEDIES

Tetanus Antitoxin, Purified.—A tetanus antitoxin, concentrated, (New and Nonofficial Remedies, 1922, p. 281) that is also marketed in syringe containers of 10,000 units. E. R. Squibb and Sons, New York.

Staphylococcus Vaccine. — This product (New and Nonofficial Remedies, 1922, p. 306) is marketed in packages of four syringes contain-

ing respectively, 100, 250, 500 and 1,000 million killed Staphylococcus aureus and Staphylococcus albus in equal proportion; in packages of four ampules containnig, respectively, 100, 250, 500 and 1,000 million killed Staphylococcus aureus and albus in equal proportion (with a syringe); and in vials of 5 cc., 10 cc. and 20 cc., each cubic centimeter containing 5,000 million killed Staphylococcus aureus and Staphylococcus albus in equal proportion. E. R. Squibb and Sons, New York.

Streptococcus Vaccine—This product (New and Nonofficial Remedies, 1922, p. 308) is marketed in packages of four syringes containing, respectively, 100, 250, 500 and 1,000 million killed streptococci; in packages of four ampules containing, respectively, 100, 250, 500 and 1,000 million killed streptococci (with a syringe) and in vials of 5 cc., 10 cc., and 20 cc., each cubic centimeter containing 1,000 million killed streptococci. E. R. Squibb and Sons, New York.

Typhoid Vaccine.—This product (New and Nonofficial Remedies, 1922, p. 310) is marketed in packages of four syringes containing, respectively, 100, 250, 500 and 1,000 million killed typhoid bacilli; in packages of four ampules containing, respectively, 100, 250, 500 and 1,000 million killed typhoid bacilli (with a syringe); and in vials of 5 cc., 10 cc., and 20 cc., each cubic centimeter containing 1,000 million killed typhoid bacilli. E. R. Squibb and Sons, New York.

Typhoid Vaccine Combined, Immunizing—A typhoid vaccine (New and Nonofficial Remedies, 1922, p. 310) that is marketed in packages of three syringes, one containing 500 million killed typhoid bacilli and 375 million each of killed paratyphoid A and paratyphoid B bacilli and each of the other two syringes containing 1,000 million killed typhoid bacilli and 750 million each of killed paratyphoid A and paratyphoid B bacilli; in packages of three ampules containing, respectively, the same dosages as the three-syringe package (with a syringe); in packages of 30 ampules, hospital size; and in vials of 5 cc., 10 cc., and 20 cc., each cubic centimeter containing 2,500 million killed bacilli. E. R. Squibb and Sons. New York.

Staphylo-Acne Vaccine.—A mixed bacterial vaccine (New and Nonofficial Remedies, 1922, p. 314) that is marketed in packages of four syringes, the first containing a mixture of 50 million each of killed Staphylococcus albus, of killed Staphylococcus aureus and of killed acne bacilli, the second containing a mixture of 125 million each of killed Staphylococcus albus, of killed Staphylococcus aureus and of killed acne bacilli, the third containing a mixture of 250 million each of killed Staphylococcus albus, of killed Staphylococcus aureus and killed acne bacilli, the fourth containing 500 million each of killed Staphylococcus albus, of killed Staphylococcus aureus and of killed acne bacilli; in package of four ampules containing the same dosages as the four-syringe package (with a syringe); and in vials of 5 cc., 10 cc., and 20 cc., each cubic centimeter containing 1,500 million killed bacteria. E. R. Squibb and Sons, New York.

Colon Vaccine.—A colon bacillus vaccine (New and Nonofficial Rem-

edies, 1922, p. 299) that is marketed in packages of four syringes containing, respectively, 100, 250, 500 and 1,000 million killed bacilli; in packages of four ampules containing, respectively, 100, 250, 500 and 1,000 million killed bacilli (with a syringe); and in vials of 5 cc., 10 cc., and 20 cc., each cubic centimeter containing 5,000 million killed bacilli. E. R. Squibb and Sons, New York. (Jour. A. M. A., Nov. 4, 1922, p. 1609).

Barium Sulphate Pure—M. C. W. —A brand of barium sulphate for Roentgen-ray work—N. N. R. (See New and Nonofficial Remedies 1922, p. 62). Mallinckrodt Chemical Works, St. Louis.

Benzosol.—A brand of guaiacol benzoate—N. N. R. (New and Nonofficial Remedies 1922, p. 92). H. A. Metz Laboratories Inc., New York.

Normal Horse Serum, P. D. & Co. This product (New and Nonofficial Remedies, 1922, p. 278) is marketed in packages containing one 10 cc., syringe container (Bio. 50); in packages containing one 10 cc., rubber-stoppered bulb (Bio. 52), and in packages containing one 30 cc., rubber-stoppered bulb (Bio. 53). Parke, Davis & Co., Detroit.

Rabies Vaccine (Cumming).—An antirabic vaccine (New and Nonofficial Remedies, 1922, p. 290). The virus is prepared by dialyzing a 1 per cent. suspension of brain tissues (from a rabbit dying of rabies induced by an injection of fixed virus) against running distilled water until the active virulent virus is destroyed. The treatment is divided into two classes: mild, requiring 14 doses; severe, requiring 21 doses. One dose, 2 cc., is given daily over a period of either 14 or 21 days. Each package (Bio. 440) consists of seven syringe containers of 2 cc., each (1 dose). Parke, Davis & Co., Detroit.

Sulfarsenol. — Sulpharsphenamine.—Chemically, sulfarsenal is closely related to neoarsphenamine. It contains from 18 to 20 per cent. of arsenic. The arsenic content of three parts of sulfarsenol is approximately equal to two parts of arsphenamine. The actions, uses and dosage are essentially the same as neoarsphenamine, but it is claimed to have the advantage over neoarsphenamine in that its solutions are more stable and in that it may be administered subcutaneously. Sulfarsenol is marketed in ampules containing, respectively, 0.06 Gm., 0.12 Gm., 0.18 Gm., 0.24 Gm., 0.30 Gm., 0.36 Gm., 0.42 Gm., 0.48 Gm., 0.54 Gm., 0.60 Gm. Chas. Leich & Co., Evansville, Ind. (Jour. A. M. A., Nov. 18, 1922, p. 1767.)

PROPAGANDA FOR REFORM

Abram's "Oscilloclast".—This is a piece of electrical apparatus which is said to produce vibrations of varying rate. Its use is based on Abram's theory that "specific drugs possess a like vibratory rate as the diseases for which they are effective." Instead of using a drug one starts the "Oscilloclast" going, moves the indicators to the number corresponding to the vibration rate of the indicated drug and applies the instrument to the sufferer, who, it is alleged, then gets the therapeutic action of the drug in question The "Oscilloclast" is not for sale. It may be leased (for about two hundred dollars) on signing a contract that the instrument will not be

opened. Within the past few months Abrams has been making bids for osteopathic patronage. The followers of the cult have not been slow to respond. The lure of the dollar and the bizzare is irresistible. Many of the lessees of the "Oscilloclast" are individuals who for years have lived in what may be called the twilight zone of professionalism where it is difficult to distinguish between the visionary with a fad and the quack or near quack with a scheme. (Jour. A. M. A., Nov. 4, 1922, p. 1626.)

Caroid.—This is a preparation of papain (obtained from papaya). Caroid was first marketed by the American Ferment Co., and later by Mead Johnson and Co. For a considerable time the Council on Pharmacy and Chemistry had Caroid under consideration and in the end rejected the product on account of its variability. Although Caroid was found more active than other preparations of papain, examination showed that the claims for its digestive efficiency were exaggerated. Since the publication of the Council's report in 1914, Mead Johnson & Co., do not seem to have made any propaganda for Caroid. It is now being promoted by the American Ferment Co., but this firm has not requested a consideration of the product by the Council. (Jour. A. M. A., Nov. 4, 1922, p. 1829.)

The A. M. A. Chemical Laboratory—When, some seventeen years ago, the Council on Pharmacy and Chemistry began its work of turning the light on proprietary medicines its main concern was to let physicians know the composition of many of the proprietary medicines widely advertised in medical journals. At that time the exposure of false or vague and meaningless declarations of identity was considered of basic importance. This fact is shown by the name of the Council and by the appointment at that time of many chemists and pharmacists as members of the Council. This need for work which should bring home to the medical profession the essential secrecy of the drug preparations which they were asked to prescribe lead also to the establishment of the A. M. A. Chemical Laboratory. The initial reports of the Council gave the medical profession the first definite statement of many proprietaries then advertised extensively. Though many of these proprietaries were offered to the profession as new chemical discoveries, they were, in fact, simple mixtures of well known chemicals and their analysis presented little difficulty. As the result of this work of the Council and the Laboratory most promoters of pharmaceutical specialties knew better than to invest money in the exploitation of mixtures, the sale of which would be interfered with when there is a disclosure of its composition. But this does not mean that today the composition of all proprietaries is correctly declared. Proprietaries are still to be found which sail under false colors as to their composition.

The work of the Chemical Laboratory, however, has become more difficult. Instead of analyses of mixtures, the Laboratory has to do with new compounds of novel composition which do not have the chemical composition or chemical constitution ascribed to them. A report of the Council on Phar-

macy and Chemistry of Galyl is an example of the more difficult work now required of the Laboratory. The Laboratory investigated the product and reached the conclusion that its administration amounted to the giving of arsphenamin (in the form of the sodium compound) with extraneous inorganic material, and thus obviated the need of comparative clinical trials of Galyl with arsphenamin. (Jour. A. M. A., Nov. 11, 1922, p. 1690).

Barium Sulphate for Roentgen-ray Work.—A manufacturer of barium sulphate for Roentgen-ray work reported to the Council on Pharmacy and Chemistry that, though its product is free from objectionable impurities and equal to that of other brands on the market, it was confronted with the difficulty that its product, when tested by the standards of New and Nonofficial Remedies, appeared to contain acid-soluble barium salts. It urged that the phosphate test be omitted in that it showed a noticeable phosphate reaction when barium phosphate is totally absent but when a non-poisonous and unobjectionable phosphate (such as calcium phosphate) was present. The manufacturer submitted the tests which he employed, which also included a test for the fineness (fluffiness) of the product.

The A. M. A. Chemical Laboratory deemed the objection to the phosphate test well founded and the proposed revision of the test for soluble barium and the "fluffiness" test worthy of consideration. The laboratory submitted the suggested tests to the firms whose brands of barium sulphate stood accepted for New and Nonofficial Remedies and also to a group of users of barium sulphate. In general the manufacturers agreed to the proposed new tests. Many of the users of barium sulphate held, however, that extreme fineness was not essential. Several objected to the high price charged for some of the very finely divided products. In consideration of the available evidence, the Laboratory recommended to the Council that the "fluffiness" test be not adopted, that the phosphate test be omitted and recommended in its place a test which will require reasonable freedom from foreign salts along with tests which shall guarantee freedom from water and acid soluble barium salts and freedom from heavy metallic salts. The Council agreed to the recommendation of the Laboratory and directed that the recommended revision of the tests be adopted for New and Nonofficial Remedies 1923. (Jour. A. M. A., Nov. 11, 1922, p. 1687.)

Galyl.—In 1918 Geo. J. Wallau, Inc., acting as U. S. distributor for Galyl (manufactured by A. Naline, Garenne, France) requested the Council on Pharmacy and Chemistry to consider the product. At that time Galyl was stated to be a compound made up of two arsphenamin molecules linked by means of two phosphorus groups. The product was insoluble in water and for use had to be dissolved in sodium carbonate. It was claimed to be less toxic than arsphenamin, quicker of action on spirilla and of equal therapeutic value. Later the composition of Galyl was changed. The "new" Galyl was stated to be a sodium salt of the "old" Galyl. The A. M. A. Chemical Laboratory in-

vestigated the new Galyl and concluded that, if the compound has the composition claimed for it, it is easily decomposed; that when prepared for administration either it is partly decomposed into sodium phosphate and sodium arsphenamin or else the original product contains sodium arsphenamin and free phosphate. In either case, injection will probably amount to the administration of phospharsphenamin (if any is present), sodium arsphenamin, sodium phosphate, sodium sulphite and sugar. In Dec. 1921 the Laboratory report was sent to the agent and by him transmitted to the French manufacturer. No evidence was received to controvert the findings of the Laboratory that Galyl does not have the composition claimed for it. On the other hand, the findings have been supported by independent investigators. Accordingly the Council declared Galyl inadmissible to New and Nonofficial Remedies because the evidence indicated that it does not have the composition claimed for it; because the therapeutic claims are unwarranted; and because its use under another name than sodium arsphenamine with deceptive claims for its composition is irrational and a detriment to rational therapy. (Jour. A. M. A. Nov. 11, p. 1706.)

Habitual Use of Barbital.—The constant use of even small doses of barbital (veronal) affects the central nervous system. Those taking the drug habitually become much debilitated and seem less able to stand moderate doses. Death has occurred from a 3 gm. dose in addicts. In Great Britain barbital (veronal) has been classified as a poison. Many cases of poisoning occur from its indiscriminate use by the laity. (Jour. A. M. A., Nov. 11, 1922, p. 1709.)

"Patent Medicine" Secrecy.—For years the medical profession has insisted that the real reason that nostrum makers keep the composition of their products secret is (1) for the glamour that such secrecy throws around them, and (2) the fact that so long as the public does not know what is in a preparation the advertiser's imagination is given freer play. The "Patent Medicine" makers, on the other hand, have maintained that their reason for keeping the composition of their products secret is that the formula is personal property and, if made known, the market would be flooded with imitations. Recently, however, Standard Remedies, the mouth piece of the "patent medicine" interests, has admitted that the medical profession was right and the "patent medicine" makers wrong. It stated editorially: "It should be remembered that while a developed formula has a great value, it is the trade name, the advertising, the merchandising skill applied in connection with it that creates its valuable good will. Ten to one a thorough search through books of formulae will reveal that your own is already known to the medical world. But no one can get the same benefit from it that you have gained unless they spend in merchandising it the same money that you have spent." (Jour. A. M. A., Nov. 11, 1922, p. 1692.)

The Pituitary Hormone.—So far the active principle of the pituitary gland has not been isolated. It is possible that the pituitary contains more than one physiologically po-

tent constituent. Perhaps both pressor and depressor compounds are derivable from the gland structures. Abel and Rhuiller have prepared products from the infundibulum which have both vasomoter and oxytocic effects. These investigators believe that if the product is obtained in the pure state, it will be fifty times more active than histamin, and that there is but a single specific hormone in the infundibulum, and that this has both vasometer and uterus-stimulating properties as well as a powerful effect on the kidneys. The hope of a speedy isolation of this pituitary hormone as a chemical entity is somewhat shattered by the fact that it is unstable in laboratory manipulations. (Jour. A. M. A., Nov. 18, 1922, p. 1770.)

Adams' Wonder Capsules.—In newspaper advertisements women and girls are urged to call at some local drug store and talk about their ailments with a kind motherly woman of the experience and sympathetic understanding of Mrs. Gene Case. This noted "health advocate" recommends Adams' Wonder Capsules for girls and women who are "troubled with periodical pains, cramps and headache at Menstrual time or who have Neuritis, Neuralgia, Stomach, bowel or bladder pain . . ." The A. M. A. Chemical Laboratory examined Adams' Wonder Capsules and found that the capsules contained the recently introduced drug, benzyl succinate. (Jour. A. M. A., Nov. 25, 1922, p. 1876.)

Bi-Oxo-Dyn not admitted to N. N. R.—Bi-Oxo-Dyn is put out by "Bi-Oxo-Dyn," Savannah, Ga., according to the information furnished the Council on Pharmacy and Chemistry by W. F. Kennedy, Jr., who states that he is the maker and originator of the product. It is to be inferred that Bi-Oxo-Dyn contains 2 per cent of free (elementary) iodin and 0.1 per cent of hydrastin, 3 per cent of chloral hydrate, 14 per cent of bismuth hydroxid, 1 per cent of menthol in a petroleum base, and from 0.5 to 1.0 per cent of a compound of succinyl peroxid and boric acid. However, the A. M. A. Chemical Laboratory reported that Bi-Oxo-Dyn contains no free iodin, but that it contains combined iodin in the form of iodid ions and that the presence of hydrogen peroxid or other peroxids could not be demonstrated. The claim is made that Bi-Oxo-Dyn is of inestimable value for injection into the urethra and it is recommended in specific urethritis, uterine hemorrhage and painful chords.

The Council declared Bi-Oxo-Dyn inadmissible to New and Nonofficial Remedies because (1) the statements of its composition are indefinite, misleading and incorrect, (2) the therapeutic claims are unwarranted, (3) the name is not descriptive of the composition of the product, and (4) Bi-Oxo-Dyn is a complex irrational mixture the marketing of which is detrimental alike to the interests of the public and of scientific medicine. (Jour. A. M. A., Nov. 25, 1922, p. 1867.)

Commercial Vitamin Preparations.—No student of the subject of the vitamins can fail to recognize the ridiculousness of recent attempts to supply alleged vitamin-bearing preparations as cure-alls. It is doubtful if any latent, not to say evident, avitaminosis

is prevalent in this country. Nevertheless, preparations sold to supply this alleged need of vitamins should at least not be fraudulent. E. P. Bailey of the Connecticut Experiment Station has determined the potency of some commercial vitamin preparations as compared with that of dried brewers' yeast. The report stated that apparently many manufacturers are not convinced of the efficiency of their vitamin preparations and, therefore, have added various medicaments of established reputation in therapeutics for good measure and to ensure a reaction of some description. Bailey compared the potency of the products on the reasonable assumption that a preparation which in a 100 mg. dose does not exhibit the potency shown by 100 mg. of a good grade of dry brewers' yeast employed under comparable conditions does not justify a claim of superior therapeutic value as a source of water-soluble B vitamin. On this basis, nearly half of the advertised products failed. Others showed only inferior content of vitamin. A few of the products equalled good brewery yeast in potency and only two or three products among nearly two dozen examined showed any superiority of "concentration" over ordinary yeast. (Jour. A. M. A., Nov. 25, 1922, p. 1846.)

The "Propaganda for Reform" in Germany.—An effort to establish a German Council on Pharmacy and Chemistry was made in Germany before the war. In spite of the demoralizing effects of the war, efforts are again being made in Germany toward the establishment of such a council. A commission of the Aerztevereinsbund, including such well-known men as Professor Heffter, Klemperer, Lenhoff and Schwalbe, has issued an appeal directed particularly against the misleading or fraudulent advertising still so common in many medical journals.

To acquaint the German medical profession with the method of the A. M. A. Council on Pharmacy and Chemistry and the changes that have been brought about in the United States, the Deutsche Medizinische Wochenschrift of which Dr. Schwalbe is editor recently published a lengthy article that detailed the organization, aims and objects and accomplishments of the Council. (Jour. A. M. A., Nov. 25, 1922, p. 1848.)

BOOK REVIEWS

THE PROPAGANDA FOR REFORM IN PROPRIETARY MEDICINES, Vol. 2, 1922. Containing Reports on Pharmacy and Chemistry and contributions from the A. M. A. Chemical Laboratory and from The Journal of the American Medical Association. Cloth. Price $2.00. Pp. 603 with illustrations. Chicago: American Medical Association, 1922.

The present book is the second volume of the "Propaganda for Reform in Proprietary Medicines." The first volume ran through nine editions. The ninth edition contained (1) the most important reports of the Council on Pharmacy and Chemistry, (2) the reports of the A. M. A. Chemical Laboratory, and (3) those articles from The Journal of the American Medical Association which deal with the

problems of proprietaryship in medicine and the furtherance of rational drug therapy. All of this material covered a period prior to 1917.

The present (second) volume contains similar material covering the period from January, 1917, to April, 1922, inclusive. Like Volume 1, this volume is divided into four parts:

Reports of the Council on Pharmacy and Chemistry:—This section presents the principles and rules which govern the Council in the examination of medicaments, contains articles and reports bearing on the work of the Council as well as the most important reports of the Council from 1917 to April, 1922, inclusive.

Reports of the A. M. A. Chemical Laboratory:—This, besides presenting the aims and objects of the Association's Chemical Laboratory, also outlines some of the Laboratory's work which is of special interest to physicians.

Contributions from The Journal: Proprietary Products:—This contains articles which have appeared in The Journal A. M. A. on proprietary preparations and their methods of exploitation.

Contributions from The Journal: Miscellany:—In this section are articles dealing with matters of interest to the medical profession but not coming strictly under the classification of proprietary medicinal preparations.

A comparison of the material that has appeared in Volume 1 of the Propaganda for Reform with that which appears in this volume will reveal the changing conditions in the proprietary medicine field. Many of the reports in the first volume brought out the fact that medicinal preparations were at that time foisted on the profession with false claims of composition; reports of this character are less conspicuous in the present volume. Many of the reports in Volume 2 deal with unwarranted therapeutic claims, especially those advanced for animal organ preparations, serums, vaccines, preparations for intravenous medication, etc. The present volume will also be found of interest in its portrayal of the changed conditions in proprietary medicines brought about by the World War.

The index in this new volume is, in effect, a bibliography, including references not only to articles in the book but also (a) to articles which appeared in Volume 1; (b) to articles on the same general subject in The Journal of the American Medical Association, and (c) to articles appearing in the annual reports of the Council on Pharmacy and Chemistry and of the A. M. A. Chemical Laboratory, but not printed in either volume of the Propaganda for reform in Proprietary Medicines.

This book is not only valuable for the information it contains, but it is also interesting. It shows up the technique of the artist in the sale of proprietary medicines, tells of his skilful word-pictures that are sent to the physician as "literature." It makes clear the work of the Council on Pharmacy and Chemistry, the A. M. A. Chemical Laboratory and The Journal of the American Medical Association in their several capacities as servants to the medical profession and as champions of rational medicine. The book should be in every physician's library, and more than that, should be within reach for convenient reference.

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ORATION ON SURGERY

H. E. SLOAN, M. D., Clarksburg

Annual Meeting West Virginia Medical Association, Huntington, May 1922

With the development of abdominal surgery an effort to secure early diagnoses and operations in surgical lesions of the abdomen was initiated and has been consistently maintained. The responsibility for many poor results was rightly placed on the late operation and the responsibility for the late operation, the physician was made to feel. Many have felt it so keenly that a mental hyperesthesia to abdominal pain has resulted. This sensitiveness is increased by the attitude of the patient and his friends who are often fully alive to the consequences of delay. Any abdominal pain excites fear and a severe or persistent pain is the most eloquent argument for operation.

As a result of this widespread fear many nonsurgical cases are finding their way to the surgeon. Where he formerly had to be the advocate he is now often the opponent of surgical intervention.

The responsibility for a decision thus placed on him, the surgeon can not avoid and can meet only by the most conscientious and careful analysis of all cases presenting abdominal symptoms.

That the ill advised abdominal operation has been and is still a frequent occurrence in our state none who are familiar with conditions can deny. At no point are we surgeons so vulnerable to the attacks of our critics.

That we may have a better understanding of one of the common causes of abdominal pain for which unnecessary operations are done is the object of this discussion.

The very meager reference in medical literature to spinal arthritis as a cause of abdominal pain is my justification for calling it to your attention this evening.

In our medical school days we

absorbed the idea that abdominal pain was associated with Potts disease and tabes dorsalis. That this is also true of spinal arthritis was not mentioned or barely mentioned in our text books of that time or later. Take for example a treatise on pain. In enumerating the causes of epigastric pain it includes neuralgia of spondylitis but beyond that it sayeth not—as a cause of pains in the lower abdomen, in the flanks, or of unilateral or atypical abdominal pain it is not considered. On the contrary, renal disease, appendicitis, gall stones, gastric or duodenal ulcer, perisplenitis, pancreatic lesions and inflammations of the parametrium are cited and enlarged upon as causes of lumbar pains.

In our text books on diagnosis how often have you seen spinal arthritis mentioned in connection with the differential diagnosis of abdominal lesions?

Coming to our medical journals, I was able to find but one article definitely dealing with this subject. In the J. A. M. A. of June 19, 1920, Dr. Douglas Vanderhoof wrote on "Spondylitis and Abdominal Pain with a discussion of nerve root symptoms simulating visceral disease." Three related articles were, "The Pain of Osteoarthritis of the Spine: its bearing on the diagnosis of urinary disease," by D. L. Chute in the Boston M. & S. J.; "Renal and Ureteral Stone Symptoms in Spondylitis," by E. S. Blaine, Am. J. of Roentgenology; and "Arthritic Changes in the Spine: their relation to the roentgenologic study of the gastro-intestinal tract," by Wm. S. Newcomet, J. A. M. A.

Thinking to unearth more references I called upon a concern which so serves physicians for a consideration and received the reply that no articles on this subject have appeared in the medical literature of the past 5 years. My interest may have given me a keener scent.

However, they were able to cite 28 articles published in the same period dealing with other causes of abdominal pain.

Two papers discussing other phases of spinal arthritis have appeared in our medical journals in that time.

In marked contrast with this paucity of treatises on spinal arthritis is the large number of studies of the general subject of arthritis as regards: its pathology, etiology and treatment, which have been published in the last 2 years by such men as Pemberton, Ely, Pringle, Harding, Bassler, Gibney, Johnson, Richards, Churchman and others.

In this attack on arthritis the orthopedists are in the van and because of their accessibility extraspinal joints have been chiefly considered.

It is therefore apparent that spinal arthritis and its relation to abdominal pain have received but scant attention by the writers in our profession. The same may be said of the rank and file if my observation can be trusted.

When we consider the anatomy and function of the spinal column and especially the strains to which the lower dorsal and lumbar regions are subjected, is it unreasonable to expect this to be a common site of arthritides? This expectation my experience sustains and furthermore in no part of the body are such lesions

so often overlooked. Slight disturbances in other joints are readily recognized but in scanning the reported cases of spinal arthritis it is evident that a diagnosis is not usually made until marked rigidity, severe pain, deformity or positive X-ray findings are present. The reason can be found in the greater obscurity of the symptoms of the milder types of spondylitis and in the scornful indifference excited by the work of the spinal adjustors.

Since arthritis of the spine is usually of the proliferative type, the spinal nerves as they pass thru the inter-vertebral foramina are readily affected by pressure or extension of the inflammation. From such involvement pain in the area of distribution naturally results, the painful sensations so induced varying in location and intensity with the type, location and intensity of the lesion. Sciatica from lower lumbar or sacroiliac arthritis is universally recognized, as are the pains referred to the shoulder and chest from arthritis in the upper spine. Abdominal pains from this cause are just as common and should be as fully recognized.

This subject has had a special interest for me since I saw several years ago a patient suffering with pain in the right lower abdomen, who in his desire to secure relief had submitted first to an appendectomy and then to a varicocele operation. The discovery that this man's pains were due to a spinal arthritis which had been overlooked by a good surgeon who had subjected him to two unnecessary operations brought me up sharply against the probability that some patients who had come under my observation where pain persisted and in some instances was worse after laparotomy, were suffering from a similar condition.

In my study of this lesion thus begun, the prevalence of spinal arthritis, its frequent association with abdominal pains and the many mistakes in diagnosis which have been observed have been truly astonishing.

That spinal arthritis of the milder type is a very common disease will be realized by any one who will examine the spine as a routine in all general examinations. Not a casual examination but a careful testing for rigidity and pain by anterior, posterior and lateral flexion and rotation and a search for tender points by deep pressure. These tests, particularly lateral flexion and rotation, will invariably increase abdominal pain from this cause.

What then is the syndrome presented by spinal arthritis with abdominal manifestations? Pain and tenderness over the distribution of the affected nerve or nerves, rigidity of the spine and spinal and abdominal muscles in this area, digestive disturbances, nausea, vomiting, slight fever and slight leucocytosis may be present. A more detailed analysis of the symptoms shows a more striking resemblance to symptoms of abdominal diseases.

The pain varies from an agony resembling that of renal or hepatic colic to a slight aching, drawing or burning sensation. Its location depends primarily on the distribution of the affected nerve. Pains in the upper abdomen arise from involvement of the 8th, 9th and 10th dorsal, in the mid-abdomen from the 10th and 11th dorsal and, in the

lower abdomen from the 12th dorsal and 1st and 2nd lumbar nerve roots. Since the arthritis is most often present at or near the dorsolumbar junction, the pains are more frequent in the lower abdomen. The pain is usually bilateral but very often it is so slight on one side that the patient will not speak of it. Where the pain in one side overshadows that in the other it is usually that in the right side which is predominant. The greater use of the muscles on the right side might be offered as an explanation of this. There is usually some pain over the entire distribution of the nerve but the greater intensity at one point may claim the patients entire attention. This seems especially true in disturbances of the 12th dorsal when the pain is often well localized at McBurney's point. Of course spinal arthritis may exist without abdominal symptoms or the back pains may be so marked as to subordinate them. On the other hand the back symptoms may be absent or so slight as to escape the attention of both patient and physician.

Since the course of arthritis is marked by exacerbations and remissions the history of the abdominal symptoms show the same variations. The exacerbations often come suddenly and subside only after several days rest in bed. During the remission rest in the recumbent position will quickly relieve the pain and this is an important differential point. On retiring the patient may be uncomfortable for an hour but rarely is sleep seriously disturbed. Some patients complain of pain on turning in bed and some can not be comfortbale on one or both sides. In the morning the pain is not present or is slight and it increases with the assumption of the activities of the day, being greatest in the latter part of the afternoon.

The taking of food does not influence the pain and constipation but slightly if at all. Exposure and menstruation do increase it. Why exposure should increase pain due to arthritis is easily understood, but the reason for this effect of menstruation is not so clear. Several observers have, however, noted this tendency in diseases of the bones and joints—at least the suggestion of a genital lesion as the cause should not be too readily accepted.

In the more severe cases all movements of the affected segment of the spine cause pain, but in the less severe types anterior and posterior flexion will often not cause pain while lateral flexion or rotation will give a prompt pain reaction. In the unilateral cases lateral flexion to the opposite side seems to be most painful. No satisfactory explanation of this occurs to me but I am sure of the correctness of the observation.

Tenderness like the pain is located over the area supplied by the affected nerve but is more evenly distributed. Careful palpation will elicit tenderness extending from near the spine throughout the entire area of nerve distribution. There are points of greater tenderness but the difference is less marked. In the case of the 12th dorsal segment for instance there are usually three points of greater tenderness, in the costo vertebral angle, the flank just above the iliac crest and at McBurney's point. Tenderness over the spinous processes is found only in severe cases. The

degree of tenderness on each side corresponds closely to the degree of pain.

The more diffuse character of the tenderness in this condition is in marked contrast to localization of tenderness found in most lesions of abdominal organs.

Hyperesthesia of the skin is much greater than in painful lesions of abdominal organs and complaint of slight or moderate pressure may be nearly as great as of deep pressure. The patient may himself call attention to the superfinal character of the sensitiveness.

Limitation of movement in the involved segment of the spine is a very constant symptom but may be easily overlooked. In the mild cases the rigidity of the spinal muscles alone limit movement and as in the case of pain this symptom may be more marked in the abdominal wall. This rigidity of the abdominal muscles varies from the board-like rigidity present in abdominal crises to an almost imperceptible tension. In the severe cases the rigidity may be indistinguishable from that of acute abdominal inflammations but in the less severe type, the muscular spasm from spinal arthritis is more readily relaxed by rest. This symptom runs parallel to the pain and tenderness.

In the acute cases especially in sensitive individuals nausea and vomiting may occur. This I wish to especially emphasize because nausea and vomiting are given such importance in the diagnosis of abdominal lesions.

That chronic digestive disturbances which may be the cause or effect are often present in the chronic type of spinal arthritis has been noted by Newcomet.

A slight rise of temperature and a leucocyte count of 10 or 12 thousand is often found in the acute cases. The urine may show a trace of albumen without casts or red cells.

When the lower abdomen is the site of pain, bladder irritability accompanied by pain in the penis or testicle may be present.

The symptomatology here outlined has many striking points of semblance to our more common surgical lesions of the abdomen—because it furnishes the best example as regards resemblance and mistaken diagnosis I wish to particularly mention our old friend appendicitis. In acute lesions affecting the right 12th dorsal nerve we have some localization of pain and tenderness at or near McBurney's point, rigidity of the right abdominal muscles, perhaps nausea or vomiting, and a slight rise of temperature and leucocytosis. The history of slight right sided pain for months with a few exacerbations requiring confinement to bed when the family physician suggested appendicitis may be secured. Add to this an ambitious surgeon with definite predilection for operating and what is the reaction?

Let me go further and assert that most of the so-called cases of chronic appendicitis without recurring acute attacks, a strong belief in which is still among us, are not appendicitis but mild cases of chronic spinal arthritis. My experience fully justifies this assertion.

Failure to relieve the pain by appendectomy in these cases is often

attributed to the formation of adhesions and shame upon us another operation may be advised and done. The relief which frequently follows the removal of a normal appendix in such cases is certainly not due to the operation per se but rather to the rest and dieting incident to the operation. In getting the history of patients who have not been relieved permanently of right sided pain by an appendectomy I have found that almost without exception the operation was followed by a period of relief, the pain returning later with the resumption of the usual activities.

Not to weary you with the detailed resemblances to other abdominal conditions I wish to call your attention as offering possibilities of confusion with spinal arthritis gastric and duodenal ulcer, gall bladder disease, uterine and adnexal inflammation, cystic degeneration of ovaries, and renal and ureteral lesions.

In the short period covered by my study I have seen one or more diagnosed cases of each of the above lesions in which the pains thought to be due to one of them was shown later to come from spondylitis.

In conclusion let me present the following summary:

1—Spinal arthritis is a common disease and more frequently the cause of abdominal pain than we have appreciated.

2—Like arthritis at other points spinal arthritis varies in severity and because of the inaccessibility of the spinal articulations the mild cases are often overlooked.

3—Its syndrome resembles so closely that of some acute and chronic abdominal diseases that mistakes in diagnosis and unnecessary operations result.

4—In the diagnosis of painful abdominal conditions the possibility of a spinal origin of the pain should always be considered.

5—Thorough examinations of the spine should be a routine in all general examinations.

6—It is time to reverse the well established custom of thinking of abdominal and pelvic lesions in back pains and think of the back in abdominal and pelvic pains.

ACUTE OSTEOMYELITIS — A PLEA FOR ITS EARLY RECOGNITION AND PROMPT SURGICAL RELIEF

By DR. FRANK LeMOYNE HUPP
Wheeling, W. Va.

Read at Annual Meeting West Virginia Medical Association, Huntington, May, 1922

The subject of acute osteomyelitis, to which we are inviting your consideration, is manifestly a large one, and its presentation needs no apology when one reflects that many of us are not fully alive to our responsibility when it comes to early recognition with prompt and correct surgical relief.

You may find no new concept in this paper, but you may recognize some older and well known ideas clothed anew and re-emphasized, as they have been gathered from the hospital ward and at the operating table.

Under the name of endosteitis, or osteomyelitis, that great savant in surgery, Samuel D. Gross, in 1859 described a disease of the medullary membrane, possessing all of

the characters of a true inflammation.

Its cause was said to be of trammatic origin, due to cold or to some constitutional taint. As Foster Kennedy observes: "When these were beginning to be solved, little or nothing was known of infections, bacteriology was still unborn, and to explain morbid processes, men were oriented toward inate degeneration and deficiency of vital forces, rather than to guerilla warfare, which we now know to be waged unceasingly in our bodies between cells and humors on the one hand and an implacable host of microscopic and ultra microscopic organisms on the other."

My friend Warbasse read a paper before the Medical Society of the County of Kings on this subject in February, 1915. In this discussion he spoke of how the surgeon had been scolding the physician for his tardiness in the early recognition and for the delay in referring for operative relief such diseases as appendicitis, ulcer of the stomach and duodenum, tuberculosis of the kidney, cancer of the gastro intestinal tract, perforated typhoid ulcer ectopic gestation and many other emergencies easily recognized. Rarely do we find any mention of acute bone infection, a disease which has ever been from its very inception, a vital surgical problem.

If one would take the trouble to look over the programs of the section in surgery of the American Medical Association, for a period extending back over twenty-five years, he will find little bearing on the physicians' responsibility in acute osteomyelitis.

Some of the older members of this society will remember with interest and perhaps some amusement as well, the animated discussions coming annually with these meetings, the chief participants being Joseph Price, Deaver, Morris, Ochsner, Richardson and Murphy.

How the appendix was characterized as the greatest character artist of the abdomen, and how we were admonished to beware of appendicular duplicity and always brand this useless death trap as guilty, until it could definitely establish its innocence.

For many years the field was given over to the acute abdomen. But the tables have changed and bone pathology by reason of its frequency and neglect has demanded recognition.

True it is as Warbasse has written, that osteomyelitis is in a class by itself, a disease wholly surgical, and the medical man is to know the symptoms, recognize them without delay, and join hands with the surgeon for immediate and correct operative relief.

He is to know there is no middle ground, no mediation, and fully appreciate that the neglect of this obligation means profound invalidism, the fate of the limb or of life itself. The doctor who will attempt to treat palliatively or medically these acute bone infections, is just as culpable as one who will attempt to use cold storage, physic, or the watchful waiting policy in an acute appendix, or who will dilly-dally with an operable cancer until the life of the patient is beyond reach.

Just as the bacteria are brought to the bone by the blood stream, so

may a general infection be said to exist before the osteomyelitis begins.

How definitely we should know that without surgery it is a serious disease even in its mildest form, and with surgery it is hopeful in its worst stages. (Warbasse).

There is scarcely any other well known and frequently seen disease in our hospitals today with respect to which there have been so many sins of omission and commission.

Etiology

With regard to the etiology, we know that a tooth containing a visible pathological change, or the invisible pathology revealed by the X-Ray, as a pyorrhoea alveolaris or a periapical granulomata, a tonsil harboring an abscess, an accessory sinus of the head which acts as host to a colony of micro organisms, may be definitely indicted as potential etiological factors in acute bone infection.

Metastatic infections secondary to typhoid fever or pneumonia, and those associated with trauma especially, following fractures of long bones have from time immemorial been recognized as contributing to the cause of this disease.

Pathology

It is not within the scope of this paper to deal with the genesis of the osteoblast, or to dwell upon the behavior and potency of this little mesoblastic cell, commonly acknowledged to be the dominant factor in bone regeneration. (Colvin). In passing, we only wish to point out with Macewen, how within a few hours of the onset of the acute symptoms of a virulent osteomyelitis, "the induction of pyogenesis in the medullary canal is followed by an enormous osteoblastic proliferation in the bone tissues, which is rapidly extruded onto the surface, filling the areola meshes, where the osteoblasts ultimately form osseous plaques and become adherent to the periosteum."

The infection spreads with great rapidity beneath the periosteum dissecting loose this fibrous membrane, and only limited at either extremity by the epiphyseal plates.

The recognition of the behavior of these bone producing cells is of the greatest importance, particularly bearing on a correct interpretation of the complex pathology as seen in the radiographer's laboratory.

Those of you who are familiar with the work of Macewen, will remember how convincing experiments demonstrated the osteogenetic potency of the osteoblast, the independent vitality and proliferative power, both within the diaphysis and without, in the midst of soft tissues, independent of the periosteum. Many of us were brought up under physiological teaching, that diaphyseal bone could not be produced without the periosteum. The writer would commend to each of you the reading of the Glasgow surgeon's little book on THE GROWTH OF BONE.

Kellogg Speed's splendid paper, appearing in a recent issue of Surgery, Gynecology and Obstetrics, sheds a wealth of light on the bone growth problem and disturbances following osteomyelitis of adolescent long bones, and he bids us remember "the law of nutrient arteries in relation to growing long bones, i. e., the nutrient arteries are

directed toward the elbows and from the knee, and the epiphysis toward which the artery is directed unites first. The fibula is an exception. Consequently, the lower epiphysis of the femur, the upper epiphysis of the tibia, the lower epiphysis of the radius and ulna, and the upper epiphysis of the humerus, all unite last in their respective bones, and must be the most guarded."

"If the child is young and many years and inches of growth expected, after two or three years when it is quite positively established that the epiphysis of the damaged bone has ceased all growth and is obliterated, the analogous epiphysis of the fellow bone may be excised to stop its overgrowth. Each bone then grows at an equal rate from the remaining epiphysis and there is no fear of subsequently appearing bowing deformity."

Remember the osteal or medullary origin of these cases and endeavor to localize the point in the medullary canal which was the seat of the first pathology. Remember that primary epiphystitis in acute pyogenic infections is rare.

One may dispute this point because of the frequence of purulent infections in the hip, but, as Colvin reminds us, if we remember the anatomy of the bones entering into this joint and know that the diaphysis of the femur is included within the capsule, we can readily appreciate the validity of the contention. In most of the other joints, the epiphysis is so isolated and excluded from the direct effect of the bacterial invasion that hematogenous suppurative arthritis is uncommon, and the swelling so often seen about the joint is purely serous in character.

Very naturally the resistance of the patient and the degree of virulence of the attacking micro organism will govern the limitations of the devastation.

Diagnosis

True it is, there are many points in common in the early symptoms of rheumatism and osteomyelitis. The pain is severe and acute in both, the tenderness marked and the white cell count increased with the hyperpyrexia.

In rheumatism it should be remembered we frequently find more than one point involved, unless it is of the Neisserian type. In osteomyelitis we rarely find more than one locality at the time of invasion, and in this disease we have all seen the white cell count run from 25,000 to 40,000, while in rheumatism it is not so high. Osler, in speaking of the differential diagnosis, places emphasis on the greater intensity of the local symptoms, the involvement of the shaft or epiphysis, rather than the joints, and the more profound constitutional disturbances in osteomyelitis.

If all cases of rheumatism presented multiple joint affections, Thorning observes, there would be little difficulty. Or, again, if all cases of osteomyelitis began in the mid shaft of long bones our mistakes would be few. Not infrequently we find one joint the seat of a rheumatic arthritis, or there are times when the picture presents multiple foci at the inception of an osteomyelitis, and the beginning of the process may be at one end of

the tibia or femur, instead of the mid shaft.

The usual picture with its symptom complex, which means just one thing, bone infection, and not a rheumatism, is ushered in abruptly by intense pain localized over the shaft or near the epiphysis. The character of the pain is definitely pathognomonic.

Nichols, in Keens Surgery, emphasizes a diagnostic point, that of gentle pressure at some point over the diaphysis a little distance from the point of maximum pain, at first it produces no reaction, but in a moment excites a violent paroxysm of suffering.

Very early there appears a slight oedema and redness over the affected shaft. With the high temperature, often 104 to 105, there is a delirium and evidence of that profound exhaustion which comes with a blood stream contamination.

The wise clinician will not wait for abscess formation and fluctuation, with this perfectly clear picture, but will give his patient that same prompt and wise counsel which he would an acute appendix.

Remember, as the pathology advances the pus of an osteomyelitis fuse the picture with a septic arthmay perforate into a joint and conritis; but it would be a sad commentary on the physician's diagnostic acumen, if he has not recognized the lesion before this disaster has arisen.

How often you have seen a delay in the recognition of the pathology until the pus has reached the surface of the bone, and the timid operator has satisfied his conscience with an incision of the abscess and a carressing stroke of the bone with a curette. He thinks he has done his duty, while the smoldering destructive volcano within the medullary canal invites his trephine, chisel and mallet.

Remember then, at its inception it is easy indeed for an osteomyelitis to play its deadly role behind the mask of a rheumatism, but to allow the inevitable march of serious seqeulae, without an effort to arrest them, is about on a par with blocking the avenues of escape at the time of a conflagration, while the house and its inmates ruthlessly burn.

It is not within our time to discuss this disease in its sub-acute or chronic forms, or to describe Nature's ingenious effort to wall off the ivory etched sequestrum, or the conservative building of a involucrum, or to measure the value of the wisely drilled cloacus, which serves as a vent for the pent up infection. Nor can we enter into the interpretation of the moving picture presented by the many skiagrams, taken at the various stages of the disease; nor have we the time to tell the story of the post operative bone regeneration, all of this will make a chapter in a future paper on these later neglected phases of this interesting disease.

Roentgen Interpretation in the Chronic Cases

We all recognize that but a short while ago the X-Ray played but litpart in the interpretation of these bone infections. Today we know well the imperative necessity of calling into requisition this diagnostic aid. We know how easily certain forms of a subacute or chronic osteomyelitis may be mistaken for tu-

berculosis or syphilis of the bone, and how very necessary it is to coordinate the laboratory and clinical findings with those of the skiagram, before a definite diagnosis is made.

We all must agree that the survey in the chronic cases has been incomplete unless the study includes a roentgen interpretation, a Wasserman, a Von Pirquet, smears from discharging sinuses, cultures from the blood, determining the presence or absence of the various pathologic micro-organisms.

Treatment

Upward of sixty years ago, with infinite wisdom, the great teacher of Jefferson Medical College, Samuel D. Gross, indicated the true relief for acute bone infection when he wrote: "If there be reason to apprehend the existence of medullary abscess, with deep seated, aching, gnawing, or boring pain, with oedema, of the subcutaneous cellular tissue, the surgeon must not hesitate to cut down upon the matter with the crown of a small trephine as the only chance of averting still more serious consequences." While years have lapsed since this sound advice was given, who will gainsay that this dictum does not ring as true today as it did in the late fifties, when it had its inception in the mind of the master surgeon?

The medullary spaces everywhere communicate so that a liberal openning through the cortex of the bone into the infected cylinder provides ample drainage in the acute stage of the disease.

It is generally understood that the bone curette must not be used in the medullary canal for to traumatize the endosteum would be as irrational as to scrape the membranous and vascular lining of a phlegmon elsewhere in the body, and may lead to a destruction and necrosis in the bony canal. (Nicoll-Keen). Bone and narrow regeneration is of course the ideal result following the prompt and correct surgical intervention in these acute cases, however sequestrum formation too often tells the tale of delay, indecision, or incomplete surgery.

One concluding word with reference to eradicating the first cause of an osteomyelitis, that is, the focal infection from which the metastatic process springs; and here we can do no better than borrow from the wisdom of Lewellys F. Barker, who wrote: "These cases must be studied from all standpoints, and sources of infection eradicated or sterilized. Co-operation is the master word in this business. We must act not along the lines of ill-considered and reckless sacrifice, but with due care and judgment, weighing the evidence as it presents itself from the investigation of all sources from which the etiological factor may spring and not from one alone. Working thus, "in perfect sympathy and uncontending equity," we are banded together for the relief of human suffering and the prolongation of human life, and shall achieve what must be our professional aim —the cure of those who seek our advice."

Discussion

Dr. Charles S. Hoffman, Keyser:

I was very much interested in this paper, because I have had quite a number of cases of osteomyelitis. As Dr. Hupp said, it is sometimes very hard to diagnose. I remember

the first case I ever had, about twenty-seven years ago, in a girl possibly about nine years of age. I treated her for several days, and had the mother rub her leg from the knee down. Finally, a younger doctor whom I called in suggested that it might be a case of osteomyelitis. I chloroformed her, cut down to the periosteum, and found it diseased. I operated upon her five times. After a while I took out the entire tibia of both legs from the epiphyses above to the epiphyses below. She has been married twice, has a child twelve years of age, and has as well formed a leg as any women would want to possess, with the exception that right along the center of the tibia is a scar practically the length of the tibia in which you could lay a lead pencil. She made a good recovery and has good use of her legs.

I remember a case in which Dr. ——, of Chicago, scraped the bone. The bone was rough and red. They gave him ether, and he almost died. He came back in two or three months, when I gave the ether and they did it again. He came back again in three or four months, and I said, "Let me take it and you give the ether." I scraped the bone, and with a mallet and chisel opened up the marrow of the bone, and found a condition of osteomyelitis, and washed out the medulla of the bone. Now, these two cases were rather misleading in appearance.

Some time ago I had a man come to me after being operated upon for fistula of the bone. I opened it up, scraped the bone, and could not see anything that looked like an opening, but the bone was a little bit blue, and I thought I would better go deeper. Finally I opened up the marrow of the bone and the medullary canal, and found a pocket of pus about two and a half inches in length. After opening it and washing it out thoroughly I packed it, and it healed up all right.

These were three entirely different types of cases.

* * *

Dr. W. J. Judy:

This is a subject for us general practitioners, as well as for the surgeons. I want to commend Dr. Hupp upon his excellent paper. This subject is of especial interest to me, and I want to add my experience to that of Dr. Hoffman, that it is not always an easy thing to make a diagnosis, especially when it is multiple. I had a case about a year ago, a boy, who had an involvement of the upper part of the femur and of the humerus on the other side. Of course, I treated him for rheumatism, and gave him salicylates, with no avail. My patient should, of course, have been in the hands of the surgeon. After about three weeks I worked it out, and it was time then to change doctors. The next physician was more of an adept at holding his patient under medical treatment, and kept him about three months, so when the surgeon got hold of him the patient lost one limb and an arm. So we should make an early diagnosis in these cases.

* * *

Dr.——————:

Early diagnosis seems to be the watchword this morning. The difference between early and late diagnosis in osteomyelitis and intestinal obstruction is that the late

diagnosis in osteomyelitis lives to haunt us, and the late diagnosis in intestinal obstruction never speaks again.

This paper is on a subject that will never get old. Dr. Hupp brought out a point which is very pertinent, and that is, not only make an early diagnosis, but be careful of what you do after you have made the diagnosis. Those of you who have had experience in osteomyelitis following meddlesome surgery —I mean by that going on and trying to do complete surgery when you have recognized the condition will live to regret it. I remember a case some time ago in which there was a double hip joint amputation from osteomyelitis. This case was a boy, taken sick about nine o'clock at night; I saw him the next morning at eight, when he had a temperature of 105 and pain in right knee. I took the boy to the hospital and made an incision at the proximal end of the tibia. As soon as we made the opening pus escaped. If I had stopped right there it would have been all right, but instead I took a chisel and knocked a hole into the upper end. What developed? In about twenty-four hours he had pain ni the right arm and developed an abscess there. On the fourth day he developed pain in the sixth rib, and developed abscess there. I believe that I was almost criminally responsible in that case. All that is necessary in a case as early as this is to relieve the pressure, and you can do it with a bone drill. Then watch the patient, and if the sequestrum forms you can perform another operation then. If you distribute the bacteria you run the risk of developing metastatic osteomyelitis in a great majority of these cases. So your enthusiasm for early diagnosis should be modified by conservatism in the treatment of this condition.

* * *

Dr. George A. MacQueen, President:

I happen to think of a few cases that I would very much rather hear Dr. Romine discuss than discuss them myself, but just at this time it seems particularly appropriate that they should be mentioned.

Both of these cases were seen the first night by myself or by Romine. One child had severe pain in his foot, or his ankle, and was brought into the hospital. The condition was recognized early. Speaking of epiphyseal infection, just above the epiphyses in the tibia an infection was found and was opened up. The boy then had a temperature of 102. He was relieved.

A very short time ago a prominent attorney in our town had had some infected teeth removed. He had a severe pain in his foot, and called Dr. Romine, who promptly sent him to the hospital. He came in with a high blood count and a temperature of 102. He had an osteomyelitis in one of the cuneiform bones of the foot, the only case that I have seen of this condition in the cuneiform bones of the foot. It was opened right up and curetted, and the condition was promptly relieved, and he is well. I mention this thinking of what a precipice this man was standing upon, had he not had the prompt diagnosis and efficient treatment that he had.

THE TREATMENT OF ACUTE BRAIN INJURIES, WITH SPECIAL REFERENCE TO THE INDICATIONS FOR OPERATION

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It is generally appreciated that the gravity of head injuries depends primarily upon the damage to the brain, and yet it is a noteworthy fact that discussions of these injuries in the literature often emphasize and perpetuate classifications and treatments at great variance with this conception.

It is not difficult to understand the reasons for the emphasis placed on a fracture of the skull, when surgery of the head was limited almost entirely to operations upon the cranial bones. With the development of surgery of the nervous system, embracing as it now does the capacity for the diagnosis of a brain lesion as well as the ability to conduct a refined operative procedure, it would appear that a proper study of head injuries should place in the forefront of investigation the damage to the brain, rather than the fracture of the skull.

Certain definite statements may be made as to a fracture of the skull and its relations to the immediate or remote brain disturbance. It is generally agreed that a depressed fracture or a compound fracture of the vault should be operated upon. Depressed fragments of the vault often cause late disturbances, although the primary symptoms of the injury may be very trifling. These late disturbances following improperly treated depressed fractures are not confined to this type of injury, however, but occur quite frequently after head injuries with simple linear fractures, and also after moderately severe head injuries with no fracture at all. With a depressed fracture a patient may have local contusion of the brain, by the fragments of bone and general compression of the brain from contusion or laceration of the brain substance, both in the vicinity of the depressed fragments and in regions of the brain remote from the fracture. The simple elevation of the depressed fragments may therefore be entirely inadequate to offset the pressure effects of the widespread brain edema and swelling.

The direct operative treatment of a compound fracture of the vault may be effective in preventing infection of the scalp and the underlying tissues, but it may be inadequate to relieve in some cases the associated intracranial tension unless a deliberate decompression is made in the subtemporal region often far removed from the fracture itself. Thus, a patient with a depressed fracture or compound fracture of the vault, may present in each case two distinct types of indications for treatment—the local treatment of the injury and appropriate treatment to offset general compression. Many of the most serious head injuries requiring operation are not associated with fracture of the skull, and widely radiating fractures may require only palliative treatment, depending upon the type of intracranial trauma and the resulting compression of the brain.

The importance of routine X-Ray examination of head injuries is generally conceded, but the occasional value of an X-Ray study does not justify the conclusion that it offers a short cut to the diagnosis of the important brain lesion, nor can one formulate the indications for treatment upon the study of an X-Ray plate of the skull. It is indispensable in the location of foreign bodies, and useful in the detection of depressed fragments, but its limitations as well as its usefulness should be clearly understood. It has seemed to me after an X-Ray examination has been made of a patient with a head injury, that there is sometimes a definite hiatus in the study of the patient. If a fracture is discovered the demands of diagnosis in many cases seem to be satisfied, while if no fracture is found the fact that the patient may nevertheless have intense compression is lost sight of.

There are three important effects of head injury: brain compression, infection and disabling late results. Any type of treatment, whether expectant or operative, must have for its purpose the prevention or control of one or all of these principal effects of the injury. Brain compression may result from laceration and contusion of the brain tissues causing extravasation of blood and the production of edema. Because of the large veins, sinuses and fluid cisterns within the dura, an indefinite amount of slowly accumulating compression may be compensated. If the brain swells from injury or if a clot accumulates, the fluid is driven from the various cisterns and fissures and the calibre of the large veins and sinuses is diminished, thus increasing the space for the brain and preventing compression of the brain tissues within the inextensible cavity of the skull. When the limit of this compensation is reached further compression brings about a definite impairment of the cerebral functions due to interference with the nutrition of the brain cells. One of the most striking manifestations of this disturbance is seen in the interference with certain mechanisms in the medulla which raise the blood pressure and lower the pulse rate. Inasmuch as large intracranial hemorrhages do not occur frequently as a result of trauma, general compression as seen in the great majority of head injuries is due probably to a chain of processes initiated by the contusion of the brain tissues. It has been shown that in contusion, rupture of numerous small vessels takes place, thereby reducing the oxygen supply to certain areas of the brain. All tissues thus deprived of oxygen absorb fluid and become edematous. The result is the increase in the volume of the brain mass, and this increase may progress beyond the limits of compensation and produce a fatal compression.

Edema of the brain may therefore require treatment more frequently than any other type of traumatic lesion. In examination of such brains removed at autopsy, one is often struck with the multiple small hemorrhages, particularly in the tips of the temporal lobes, and in the poles of the frontal lobes. These lobes are well incased in bone and therefore receive the full force of the concussional impact which produces the rupture of small blood vessels with consequent swelling.

Reference may here be made to two rather common types of lesions which result from injuries to the brain. In the first type, when the cortex is exposed, it is at once evident that there is high intracranial tension. The brain is plum-colored and protrudes with considerable force into the dural opening of the decompression. Numerous small clots are found beneath the dura. There is little free fluid. If a spatula is passed between the dura and the cortex and pressure made on the latter, fluid, blood, and clots may escape. One is doubtful under such conditions of the adequacy of a single decompression, and these are the cases that are likely to develop hyperthermia a few hours after operation and go with rapid progress to a fatal termination.

A second type of lesion which is rather frequent in my experience, is an excessive amount of clear or slightly blood-tinged fluid under a very tense dura. When the dura is nicked, fluid spurts a foot or more, and if the spatula is passed under the temporal lobe a large quantity of fluid escapes, so that by the time the decompression operation is finished the tension appears to be quite normal, and the cortex is seen to be covered loosely by the dura. These are the cases which may for a time be considered borderline cases. They may or may not have a fracture, and operation has been decided upon perhaps because of headache, slowing of the pulse, blurring of the discs, and a spinal fluid pressure of from 15 to 20. We have seen such cases reach a stage of severe compression as late as the seventh or eighth day, and have seen the symptoms vanish rapidly with a decompressive operation. The pathology in these cases appears to consist largely of a tense accumulation of subdural fluid which would seem to require incision of the dura if the symptoms are severe enough to need any form of operative relief. Subdural fluid could hardly be withdrawn by lumbar puncture which taps the subarachnoid space.

It has been interesting to investigate certain symptoms and signs which are generally considered of importance in determining the type of lesion and the indications for treatment. Variations in blood pressure have received considerable attention as an index to the degree of intracranial pressure. It is accepted that the blood pressure is low in the stage of shock following head injury and that in the stage of terminal compression, with engorgement of the splanchnic field, the blood pressure rapidly falls. Variations of blood pressure in the course of the injury between these two stages are often by no means clear and may be misleading. If rupture of the middle meningeal artery were the usual pathology of a head injury, steep elevations of blood pressure would probably occur quite regularly. This may be demonstrated in the animal laboratory by inflating a rubber bag within the dog's skull, thus causing a tremendous rise of blood pressure. With the usual case of head injury, however, in which the patient may have received a violent blow, producing widespread contusion and modifying all cerebral functions, the mechanism which raises blood pressure appears to suffer along with other regions of the brain, and may be in-

capable of normal response. Extreme degrees of compression may be present in such cases with a normal or slightly elevated blood pressure.

Errors may sometimes be made when patients with chronic kidney disease and vascular hypertension receive a head injury. These patients after the termination of the shock period may show what to them is the normal blood pressure, and this pressure may be high. Differentiation in such cases is possible only by careful neurological examination. If it can be shown that the patient's high blood pressure is due to intracranial tension, prompt operation is required to relieve the compromised medullary centers.

It is our rule to have half-hourly estimations of blood pressure made for the first twenty-four hours, or as long as we are in doubt as to the activity or progress of the intracranial injury. These estimations of blood pressure are made by the nurse, with an occasional check by the house physician. In this way not only may the blood pressure curve be accurately followed and the progress of shock ascertained, but the method insures a more careful observation of the patient by the nurse, and this is of great importance with patients who are unconscious.

We have been struck by a rising pulse pressure in some patients with compression: A vigorous young man with a large intradural clot and contusion showed a systolic pressure of from 150 to 170 and a diastolic pressure of from 40 to 55. Spinal puncture withdrew a bloody fluid under a pressure of 40 mm. Hg. The discs were blurred and the veins tortuous. The patient had intense headache. A large subtemporal decompression, with removal of an intradural clot, was followed by prompt relief. We believe that a high pulse pressure is a sign of definite value in head cases, as indicating compression of the brain. Routine blood pressure estimations in a considerable series of traumatic head cases have convinced us that while a high systolic blood pressure may be a very valuable sign when taken in conjunction with other neurological evidence of intracranial tension, it should be remembered that extreme degrees of compression may exist with the blood pressure normal or only slightly elevated above the normal.

Prolonged unconsciousness generally results from contusion, but the careful study of some of these patients with or without fracture will show that there are no indications for operation. For the failure of some patients with contusion and prolonged unconsciousness to develop compression, we can offer no explanation. The immediate unconsciousness is undoubtedly due to concussion, but its continuance is maintained by demonstrable pathological processes, chief of which are probably contusion and laceration of the brain tissue. We generally feel that prolonged unconsciousness is a conspicuous indication for operation, but we withhold operation even in these cases unless a definite rise in the intracranial tension can be demonstrated. If the patient has been unconscious twenty-four hours and the shock has passed, and if the spinal fluid is bloodtinged and under pressure, we have usually performed a subtemporal decompres-

sion, both for its immediate effects and to protect the patient from late disabling results.

The temperature curve has some bearing on the diagnosis of the lesion and the prognosis of the case. Between the low temperature of the shock period and the steep elevation of temperature which follows later upon extensive contusion of the brain, the temperature range may follow any course tending to rise above 102 or 103 in the most serious cases. Slight fever is almost always present in contusion and may be considered as characteristic of this type of lesion.

Early changes in the eyegrounds are found in cases of extradural hemorrhage, often from slight violence. During the period of shock the tissue processes which may later cause brain edema are in abeyance, and inasmuch as the shock period may last for from six to twelve hours or more, the signs of compression do not manifest themselves in the average case until after this time. The changes in the optic discs naturally follow the progress of the compression and it is essential that the discs be examined as early as possible after the injury and a careful note made of their appearance, in order that comparisons may be made with later examinations of the discs. In this way slight changes in the eyegrounds may be detected. If only one axamination is made of the discs, and this late, it may be impossible to say even though the patient may have slight blurring, that this appeared as a result of compression. It is important to detect the progressive enlargement of veins of the retina which may exist without marked swelling of the discs. Naturally one would not expect a fully developed choked disc to follow a brain injury in many cases, but it is sometimes seen.

Lumbar puncture is an important procedure in the study of head injuries. While the spinal fluid pressure may vary within the normal, a pressure of 15 mm. Hg. is definitely abnormal, and if continuing for twenty-four hours or more, indicates the necessity for employment of some measure to lower the pressure. A pressure of 18 to 20, with bloodtinged spinal fluid continuing for more than twenty-four hours is, in my opinion, one of the most reliable indications for operation. We have routinely measured the spinal fluid pressure at lumbar puncture with a mercury manometer, and while the pressure findings are always interpreted in the light of neurological study, yet we believe that it is important to know definitely the amount of pressure and not base our estimate of the pressure upon the number of drops which escape in a minute. We have repeatedly been misled by attempting to estimate pressure in this way. In some cases where the escape of fluid has indicated a moderate rise of pressure, the manometer has recorded a pressure as high as 50 or 60. In borderline cases in which the pressure is only slightly elevated, say 15 or 18, and where clinically the patient appears to be doing well, daily lumbar punctures may be a valuable part of the treatment. In rare cases of hemorrhage about the medulla and pons, spinal puncture may be an effective method of relief in the early stages of the injury. One such patient who

appeared to be about to die within the first two hours after injury from hemorrhage in the posterior fossa, was immediately improved by withdrawing a large amount of bloody spinal fluid, and made a rapid and complete recovery. If there is a well-marked checked disc we we do not employ lumbar puncture because of its dangers under such conditions. As a rule, the danger of lumbar puncture in head injuries is infinitely less than in brain tumor, where the withdrawal of spinal fluid may be followed by a prompt fatality. We believe that the accurate measurement of spinal fluid pressure supplies information of unquestioned value in the management of acute head injuries. We are aware of the wide divergence of opinion upon this point. Even after the most careful clinical examination of many patients with head injuries in civil life, one is often uncertain as to whether or not the intracranial pressure is stationary or advancing. It is in this type of case that estimation of spinal fluid pressure is especially useful. Moreover, we believe it would be desirable to ascertain whether the patient has bloody fluid and to remove this fluid by spinal puncture if the condition is not serious enough to require subtemporal decompression. Spinal puncture has been used almost routinely in my own cases when the intracranial lesion appeared to be of sufficient consequence to require investigation. We have hesitated to perform a lumbar puncture where there was a likelihood of local contamination of the brain, as in a compound fracture of the vault or one into the sinuses. In such cases we have felt that the reduction of pressure might predispose to the spreading of contaminated material and a subsequent meningitis.

The pulse is rapid in two stages of head injury; during shock and in terminal compression. A slow pulse does not necessarily indicate operation unless associated with other signs of compression. When, however, a slow pulse results from manifest compression, it is a signal for prompt relief of pressure to prevent anemia of the centers of the brain stem. It is not unusual for the pulse to continue in the 60's for some time after the patient is convalescent.

An inspection of the pupils is usually the first examination made of patients with head injuries. It is easily done and does not disturb the patient, but as a rule an examination of the pupils gives very little information as to the location and extent of the brain injury. Fixed pupils indicate a serious injury but inasmuch as this is true in most acute diseases, it loses special significance in brain trauma. Many variations in the state of the pupils are found—they may be contracted, dilated, equal or unequal, but as a rule no interpretation of value can be placed on these variations. A dilated pupil is often found on the side of the compressing agent provided the lesion is supratentorial.

The discovery of focal symptoms will generally depend upon the thoroughness with which the neurological examination is made. Naturally, focal symptoms will be present or absent depending upon the region of the brain involved. It is of the greatest importance to detect promptly the appearance of a

focal symptom after an apparently slight injury, and in this connection a special reference should be made to extradural bleeding. Twice during the past year I have been requested to meet a patient at the hospital, prepared to do an immediate operation for brain injury produced by a blow over the temporal regions. Both of these patients died before reaching the hospital. In both cases the injury had been regarded as trivial at first, as the patient after being stunned for a few minutes had appeared to be quite normal for several hours. While no autopsy was obtained in either case it seems justifiable to conclude that these patients had large extradural clots. When a patient who has received a light blow, with momentary unconsciousness, shows within a few hours a departure from normal cerebration, changed mental behavior, difficulty in calling words, weakness or numbness in any of the extremities, he should be most carefully examined. Practically all extradural hemorrhage cases would recover if the condition were promptly recognized, and this may usually be done. We like to regard the free interval as the period of approximate normality which extends from the recovery from the immediate effects of the injury to the appearance of the first focal symptom. To delay removal of an extradural clot until the reappearance of unconsciousness often means a fatal termination of the case.

The general management of head injuries in civil life should receive special attention. The patient often enters the hospital severely shocked, and this condition dominates the situation. Rough manipulation in handling the patient, severe jolting of the ambulance, the rushing of the patient to the X-Ray room to detect whether or not a fracture is present, are all hurtful during the shock period. It would seem unnecessary to state that operation upon a patient severely shocked from a head injury, while well intended, may destroy the only chance for recovery. We have made it a rule to attempt no detailed examination of these patients until recovery from shock has set in, unless there is a probability of foreign bodies in the brain. The eyegrounds may be examined and the blood pressure and pulse may also be taken without disturbing the patient, and these should be done. When the patient reacts from shock in the ordinary type of head injury, a careful clinical examination should be made with reexamination of eyegrounds, often a spinal puncture and usually an X-Ray. If there is a compound fracture or gunshot wound, operation should be done within the first twelve hours unless the patient's symptoms indicate a moribund condition. While shock may be present in these cases the treatment of this condition may be carried out during the operation, which should always be done under local anesthesia. The wound should be debrided and the foreign bodies removed by gentle suction and irrigation. As a rule the dura should be tightly closed. If operation is delayed longer than twelve hours in gunshot wounds with dural penetration, infection is likely to set in with a fatal result.

We classify gunshot cases as emergencies so far as the operation

is concerned, but the average head injury of civil life is harmed rather than helped by hurried operation. From twenty to twenty-five per cent of brain injuries without compound fractures will require operation. It is therefore most essential that the case be carefully studied in order that appropriate treatment may be applied both to those needing operation and to the larger class in which operation is harmful. The decision to operate depends largely upon the judgment of the surgeon and his ability to deal with the various types of intracranial trauma which may be present. If depressed fractures and brain injuries associated with compound fracture be expected, the indications for operation should rest entirely upon whether or not the patient has dangerous brain pressure as a result of his injury. To demonstrate this pressure requires careful neurological study with the other diagnostic accessories, such as spinal puncture, eyeground examination and X-Ray study.

The question of late disability should also enter the decision as to whether or not the operation should be done. My own experience inclines me to believe that a patient who recovers after fighting out a compression for weeks, is much more likely to be permanently disabled than if the pressure had been relieved by a prompt subtemporal decompression. We do not believe that the primary recovery from the injury is alone sufficient, if by doing a subtemporal decompression the severity of the late effects might be materially modified. It is difficult to determine to what extent decompressive operations ameliorate the severity of the patient's late disabilities, but we believe it is reasonable to assume that whatever the cerebral lesion may be it is unfavorably influenced by high intracranial tension.

The operation of subtemporal decompression is the one most frequently employed for the relief of general pressure above the tentorium. It may be satisfactorily done under local anesthesia, and the mortality of the operation should be negligible. The operation may be difficult when tension is high from a swollen brain. Should there be a rupture of the cortex into the dural opening from rough technique, it is extremely doubtful whether the operation will prove of much value. In such cases the swelling from the contusion produced by the operation itself, may take up all of the increase of intracranial space which the decompression provides. It is our practice in doing a decompression to make a small nick in the dura as soon as sufficient bone has been removed. If the fluid spurts freely the chances are that the pressure may be relieved by the escape of the fluid. If there is little fluid and the brain appears dry, and the dura does not pulsate, we do a ventricular or a lumbar puncture if the former fails to withdraw fluid in sufficient quantity to relieve the tension. This reduces the tension so that the dura may be opened without injury to the cortex. We do not believe lumbar puncture is dangerous when done under such conditions. If the pressure is not relieved by ventricular or lumbar puncture, one ounce of thirty per cent intravenous salt solution may be given on the table. This sometimes reduces the pressure considerably for

from six to eight hours. We have found hypertonic salt solution at times a most valuable agent in dealing with the pressure conditions of tumor, particularly when there is obstructive hydrocephalus.

Occasionally it is necessary to remove large clots from beneath the cortex. Naturally, this will not be done unless one is backed by the conviction which comes from a careful neurological study. An example of such cases may be briefly reported: A vigorous man forty-five years of age was struck on the left side of the head with a club. This blow produced a short, non-depressed linear fracture across the upper part of the temporal region. The man was not rendered unconscious by the injury, and in fact was hardly stunned. About forty-five minutes later considerable disturbance of speech appeared which rapidly progressed to an almost complete motor aphasia. About an hour later the man was entirely paralyzed on the right side, with the face and tongue involved. Naturally, with such a history and the symptoms taken together with the location of the blow, a middle meningeal hemorrhage on the left side was suspected. The man had no elevation of blood pressure above the normal, nor did his pulse fall below seventy. A left subtemporal opening was made for the removal of an extradural clot but there was no evidence of extradural bleeding. An incision in the dura revealed small hemorrhages of the cortex. We were satisfied that this could not be responsible for the man's condition. An incision was made through the cortex over the face area. A large clot was immediately extruded.

A wide incision of the dura in subtemporal decompressions and a careful closure of the wound in layers are technical details of great importance. Incisions of the scalp when not carefully sutured are likely to be permanently tender and annoying to the patient. Rubber tissue drainage is generally employed for twenty-four to forty-eight hours.

In the treatment of head injuries attention has been largely focused on the management of the patient during the first two or three weeks after the injury, or until he leaves the hospital. We have been greatly impressed by the symptoms and histories of a large number of old head injuries which have been observed during the past three years. Many of these cases recovered from the primary injury without operation but were permanent wrecks. It has seemed to us that late undesirable effects of head injury may be beneficially modified first, by proper treatment, operative or otherwise, immediately after the injury, and secondly, by careful regulation of the patient's life for from six to twelve months after he leaves the hospital. — 503 Professional Building.

CERTAIN ESSENTIALS NECESSARY FOR BETTER RESULTS IN THE DIAGNOSIS, TREATMENT AND CONTROL OF PULMONARY TUBERCULOSIS IN WEST VIRGINIA

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The results obtained by the State Tuberculosis Sanatorium since its beginning were presented in a pre-

ceding article.* It served to emphasize many of the difficulties that must, to some extent, be overcome before we can hope to accomplish the benefits of which the institution is capable. These problems are not confined to this sanatorium alone, but to others as well where the conditions are similar to those existing in this State, and the hope cherished from compiling this paper is that it may be the means of producing a much needed stimulation in this particular field of medicine in West Virginia. There must be an arousing of interest and better co-operation on the part of all if we are to keep pace with other states in what is being done in the treatment and control of this disease.

Need of Early Diagnosis

Some of these questions were briefly touched upon previously but not discussed to the extent they deserved. At present the one which most concerns the sanatorium is the paramount need of early diagnosis. Its value is well recognized and established, being second only in importance to the prevention of the disease, and great effort is being made by various organizations throughout the country to acquaint physicians with its necessity. Its urgency is quite apparent when every sanatorium report elucidates that a much higher percent of incipient cases become arrested than of the latter stages. Furthermore, the follow-up reports of institutions, where they are employed, prove conclusively that more permanent results are obtained in patients of this class. The economic angle of its value also should be appreciated when it is shown that incipient cases do not require the prolonged sanatorium treatment which is necessary in those with advanced disease.

The failure of physicians to diagnose the disease in its early stage is markedly demonstrated by the patients received at this institution. Although it must be admitted that the patient is sometimes at fault in that a physician is not consulted until the disease has progressed to the advanced condition; but, nevertheless, the greater part of the responsibility must rest upon the medical profession. Almost fifty per cent of the admissions to this sanatorium have been in the advanced stages and the majority are hopeless and often in a serious condition upon arrival. Where necessity demands, a few are permitted to remain with no hope for ultimate improvement, while those who have homes where they can receive proper care are requested to return to them. If these hopeless cases were not sent to the institution and were properly instructed by physicians and nurses in regard to care and hygiene in the home, it would be possible to admit many more of those in the early stage in whom far better results could be expected.

The Application of Cardinal Methods of Diagnosis

While it is appreciated that symptoms of pulmonary tuberculosis may be very obscure, or may very often simulate other diseases, and under these conditions would require considerable study and observation, yet when evidence of frank tuberculo-

*Clovis, E. E., Mills, G. E.; A History of the West Virginia State Tuberculosis Sanitarium and a Review of Its Patients, West Virginia Medical Journal Vol. xvi., No. 11 (June, 1922).

sis exists, it is reasonable to presume that a diagnosis could be made if the known diagnostic methods were applied. As the application of these methods is such a fundamental need, it is well that they be recounted and briefly discussed in their relative importance.

In the beginning it must be emphasized that the chest can never be properly examined unless the patient is stripped to the waist. It is hardly necessary to go into detail in regard to inspection and palpation, however, it must be said they are frequently suggestive. Percussion, as an auxiliary, has much more significance and often locates the diseased area, especially in advanced cases while in the incipient it may mean nothing. Auscultation is by far the most important factor in chest examination. The stethoscope should first be applied to the chest and breath sounds noted. Other sounds may also be heard, as rales, squeaks, and the friction rub of pleurisy. But in order for auscultation to have its real value there must be proper technic. The patient is first requested to breathe out as much air as can be done comfortably, then to cough out the remaining, at the end of which, or at the beginning of inspiration, rales, if present, will be heard. The type of rales common to pulmonary tuberculosis consists of the moderately coarse and in the greater percent of cases cannot be heard except when following the expiratory cough, and even when heard without cough are more pronounced when following it. There is a rule which has been followed many years, and which was first advocated by Brown of Saranac Lake and was reiterated by him in a recent paper.*

1. Sputum examination
2. Physical examination
3. X-ray examination
4. History

1—SPUTUM EXAMINATION. This is the most important examination and the time has long since passed when one is excusable in neglecting it. The state provides a laboratory and there are many private laboratories in the cities where these examinations may be had. The sputum should be examined repeatedly if it is negative, while one positive is sufficient for diagnosis. Patients will very often state that their cough is not productive of sputum, but upon close questioning they will, in many instances, admit they occasionally clear their throats or hawk up a small amount of phlegm or sputum. The sputum raised in the early morning should be saved and sent to the laboratory where a proper specimen may be selected for examination.

2—PHYSICAL EXAMINATION. Previous to the chest examination the following should be particularly noted:

(1.) Temperature, pulse, height and weight.

(2.) General Condition: Appearance, Nutrition, Skin.

(3.) Glandular Enlargement: Neck, Axilla.

(4.) Condition of Finger Nails, Cyanotic, Curved.

That all abnormal signs (this particularly refers to rales) at one or both apexes should demand a diagnosis of pulmonary tuberculosis un-

*Brown, Lawrason; Certain Fundamentals in Early Diagnosis of Pulmonary Tuberculosis. J. A. M. A. 78:79, (Jan. 14, 1922).

til proven otherwise. While all abnormal signs at the base should be regarded as non-turberculous until disproved.

3—X-RAY EXAMINATION. The fluroscope may reveal certain signs and conditions indicative of pulmonary tuberculosis, but is of much less assistance in arriving at definite conclusions than stereoscopic roentgenograms. They are of inestimable aid in confirming a chest examination or in revealing the disease in suspicious cases.

4—HISTORY. The family history should be elicited, and importance attached if the individual has been subjected to infection by another member of the family who has the disease. Inquiry should be made relative to infection by repeated contact from without the family. In addition there should be a thorough history of the past and present symptoms.

These constitute the essential measures of diagnosis and no physician should feel satisfied, if he has reasons to suspect an individual of having the disease, until he has thoroughly applied them. An illustration which strikingly emphasizes that proper application of these methods is not being made as often as it should was found in a survey of the examination of 150 patients previous to admission. The following results were noted: 111 or 74% were examined on the skin; 27 or 18% were examined over the clothes; while 12 or 8% received no chest examination. The sputum was examined in 81 or 54% and the X-ray was utilized in 31 or 20%. Of course, it is not expected that every physician should be a specialist in this branch of medicine, but on the other hand these cardinal methods of diagnosis, which are within the reach of all, should be applied more often than they have been in the past.

Co-operation of Physicians

A better co-operation of physicians would be of inestimable value in sifting out those with the affliction, and this calls for plain speaking. Let it be said in the best of spirit, and with no intention of being unjustly critical, that there is an unfortunate disposition on the part of some in the medical profession, which is happily becoming less marked, not to be willing to call tuberculosis by its name, but something else, as general debility, bronchitis, etc. While it is admitted that the diagnosis of the disease is a great shock to many patients, it is well to remember that frankness is less trying in the end than to have them harbor a false illusion relative to their condition.

There is also the unpleasant truth that in a few instances the diagnosis is concealed at the request of the patient which often permits him to live in a community without the slightest precautions of proper hygiene, and then again there is a tendency on the part of some to withhold such diagnosis for fear of losing patients. These facts have come to us through patients, and are to be condemned without equivocation.

Dissemination of Knowledge of Tuberculosis

If it were possible for every one to be thoroughly informed concerning the knowledge we already possess relative to tuberculosis a wonderful step forward would be made

in eradication of the disease. As a result, infection would be prevented in thousands of people; those infected would be better enabled to guard their lives—thus reducing morbidity; and those with the disease would be more often detected in the incipient stage—thus reducing mortality. A brief discussion of the most important of these known factors will be given, as the knowledge of them is of such vital necessity in the work to be done in the future.

A—Etiology. The disease is of germ origin caused by the tubercle bacillus, and is found practically everywhere. It is a parasite, and its hosts are man, cattle and birds, resulting in three types: the human, bovine and avian.

B—Infection. It has been conceded for many years that very few, if any, adults at the age of thirty have escaped infection. This infection begins with infancy, and increases yearly until it is estimated that fully 70% at the age of puberty are hosts of the bacilli.

The question would naturally follow that, if all adults are infected, why does the disease not manifest itself more often? This ordinary natural infection is not regarded as a determining factor in producing an active disease, for when bacilli lodge in the tissues of the host they react against them and a walling off process results. Since the bacillus is able to resist destruction to a high degree, this walling off, or encapsulation, which occurs, rather than an actual destruction of the germ, protects the rest of the body. Consequently, this primary infection is so slight as to end in favor of the host without causing any inconvenience, and there is no reason for him to think of the disease during life.

There are some authorities who claim this ordinary infection to be a safeguard. This may be extreme but it should, at least, be regarded as producing a partial or relative immunity. However, this does not mean that we should not prevent infection for, after all, it is the only way we can hope to overcome the universality of the disease, and is the one big problem which will have to be solved in the future if tuberculosis is to be conquered.

Since infection is so universal most of it surely comes from some spitting or coughing individual, who very often, and more often than we at present realize, has the disease unknown to himself. Just here it is well to note that there is practically no danger at all in careful patients with sanatorium training. The untrained, ignorant and careless consumptives are for the most part the conveyors and disseminators of the disease. They frequently cough at will with no attempt to cover the mouth, and expectorate with the utmost indifference whether in the street, office, factory or home. The germs thus permeating the air from dried sputum ground into dust, or from the little sprays that come from the mouth of a coughing individual, become inhaled and perhaps to some extent ingested. Inhalation, so far as has been determined, is the real mode of infection of the human race with the human type of bacillus. Ingestion of infected milk is the fruitful source of childhood infection with the bovine bacillus, and is frequently manifested by disease of the glands, bones, and perhaps

rarely the lungs. We may also have infection from contaminated foods, or from drinking or eating utensils. This forcibly impresses upon us that if we are to prevent infection we must have better hygiene of sputum and the eradication of tuberculous cattle, and if necessary, stringent laws should be passed to prevent spitting and the use of milk from infected cows.

A few years ago it was thought by a number of observers that as infection occurred in the majority in childhood, it was impossible for one to receive another in adult life. Now, however, such a possibility is conceded and probably occurs more often than we anticipate and as a result a history of direct contact is given greater significance than heretofore.

C—Heredity. The discovery of the tubercle bacillus in 1882 by Koch and the proof that this bacillus was the cause of tuberculosis changed the prevalent belief that tuberculosis was hereditary to the fact of its having to be acquired, and it seems odd that forty years later there is still the belief among some of the physicians and, possibly, a majority of the laity, that the disease is inherited. A child may be born with tuberculosis but very few cases have ever been recorded. However, the part heredity may play is in furnishing suitable grounds for the growth of the bacilli, as is evidenced by certain families which are devastated by tuberculosis, or in producing a relative immunity which results in the majority.

D—Predisposing Causes. By predisposing causes are meant conditions which lower the resistance and permit an old infection to became active or allow a recent infection to fall upon fertile soil. The most frequent are: continuous overfatigue, undue strain or injury, malnutrition, poor hygienic and insanitary surroundings, climatic exposure, dissipation, frequent and neglected colds, contact with active tuberculosis in which one receives massive infection and acute infections, such as: influenza, measles, pneumonia, etc., or following a prolonged septic process. Some of these conditions are more often the forerunner of the disease, but, in addition, it is well to remember that tuberculosis may sequel, or an old focus be activated by any condition that lowers the resistance or vitality.

E—Common Symptoms. The disease may be so insidious as to produce very slight symptoms, and these are often hard to elicit from a suspect. There are a few who will try to conceal their symptoms, but if proper patience is exercised in questioning, the physician will very often be rewarded. The symptoms most common to the disease are: anorexia, malaise, loss of strength and weight, cough and expectoration, chills, fever, night sweats, hoarseness, wet and dry pleurisy, hemorrhage and dyspnoea. It is a good rule to follow that if any patient has a persistent cough for a period of a month the attention should be directed to an involvment of the lungs.

F—Rest. It is the only treatment for pulmonary tuberculosis that has stood the test of time, and the meaning of rest is lying on the bed or in a reclining chair. The former is the method in use at this institution for it is believed that more

relaxation is obtained and that respirations are more reduced in frequence and depth than if the patients were resting in a reclining chair or in a semi-prone position. It is the quieting of respiration concomitant with rest, which allows diseased areas of the lung an opportunity to calcify, or fibrose, and the more one indulges in relaxation the greater the chance of healing. Rest, therefore, is Nature's own remedy and it must be confessed that without it very little progress would have been made in the treatment of the disease.

The question would naturally follow, why can't this treatment be instituted at home? In part it can but not successfully in very many cases. There are times and conditions which necessitate this being done but where it is possible all patients with a fair chance of recovery should be sent to the sanatorium. The reasons are obvious, for there the patient is under constant medical supervision, and the value of treatment and hygiene is taught. Also they have a better opportunity to study themselves; to appreciate more what they may do without injury to themselves, and are the better enabled to recognize the proper limits of endurance when they return to their work.

G—Curability. Is pulmonary tuberculosis curable? This is a question very frequently asked. The answer is in the affirmative and the fact of its curability is demonstrated by individuals who have had the disease, and lived out their lives to die of some other condition; and by autopsies which have revealed that approximately thirty per cent who die of other diseases have a latent or healed tuberculous lesion in their lungs. It is well to reiterate that the greater number of those who are apparently cured have minimal amount of disease.

Finally it must be remembered that before one can be cured the symptoms must be absent for a period of from three to four years while following out the usual regime of living and working. In conclusion, sanatorium treatment is the most valuable factor in restoring the patients to health, and the education obtained relative to the care of themselves should be the beacon light for them to follow in order to retain health, or relapse as is inevitable in the majority of those who are disposed to do as they like.

Need of Clinics

It is only too true that a large percent of patients who have received sanatorium treatment do, in the course of time, succumb to the disease. This is, of course, in direct proportion to the seriousness of the disease when treatment was begun. It has already been stated that sanatoria admitting early cases only have a much better record of discharged patients than those where a majority are received in the advanced stages. As the incipient admissions to this institution for the past nine years have been only 11.9 per cent of the total the question of obtaining early cases certainly looms large before us in West Virginia.

The most practical solution of the problem which has presented itself is the establishment of clinics. These have been instituted in other states and have proven of great value. They should be established throughout the state under the con-

trol of experienced physicians and nurses and so situated as to be as accessible as possible. They should be free and should serve not only as a clinic for tuberculosis but for other conditions as well. The benefits to be derived from a tuberculosis standpoint would be many.

First—The physicians of every community would be given free consultation service.

Second—The patient would more often receive an earlier diagnosis of the disease.

Third—Those who could be benefitted would be urged to enter the sanatorium at once, while those of the hopeless type could be kept at home, and instructed in proper care of themselves as well as in the precautions necessary to protect others.

Fourth—As the most critical time in the patients' recovery is during the first three or four years follow-discharge from the sanatorium, it is imperative that they should have the best advice and careful observation during this period. These clinics would afford them the opportunity of obtaining this information. Furthermore, if they were not progressing as favorably as they should this would be detected and many saved from a relapse.

While there are those who are financially able to obtain the advice and examinations necessary in the effort to retain health, there are many more who are unable to do so, and these cases could be benefitted in no other way except by means of free clinics, which should be supplied by the state, county, municipality or conjointly.

Summary

1—The imperative need of an arousing of interest in tuberculosis in West Virginia that we may keep pace with other states in this work.

2—The value of early diagnosis is one of the most urgent problems.

3—Physicians should more often recognize the hopeless case and not burden the State Sanatorium with them, but impart to them the knowledge necessary for proper hygiene in the home.

4—The thorough application of the cardinal methods of diagnosis is very essential. They are:

(1)—Sputum.
(2)—Physical examination.
(3)—X-ray examination.
(4)—History.

5—The presence of tubercle bacilli in the sputum is positive proof of the disease and this examination should be resorted to in every case.

6—It should also be emphasized that repeated negative examinations of the sputum do not exclude tuberculosis.

7—Auscultation is by far the most important factor in chest examination when used in conjunction with proper technic, and should never be attempted unless the patient is stripped to the waist.

8—The presence of moderately coarse rales and positive stereoscopic roentgenograms are next in importance to the examination of the sputum.

9—Family history, contact history and symptomatic history are very necessary in arriving at diagnostic conclusions relative to pulmonary tuberculosis.

10—A survey of one hundred and fifty patients at this institution proved, conclusively, that the cardinal methods of diagnosis are not properly applied in this state.

11—A better co-operation on the part of physicians would do much to alleviate present conditions.

12—Frankness should be used more in diagnosis and optimism in treatment.

13—Disssemination of the pertinent facts already known concerning tuberculosis would do much toward eradicating the disease.

14—The germ origin of tuberculosis was established in 1882 by Koch, proving that heredity, with very few exceptions, does not occur but is acquired.

15—That most infection occurs during childhood but infection, or re-infection, may occur in adult life.

16—Any condition which lowers the resistance or vitality predisposes to the disease.

17—The symptoms most suggestive of pulmonary tuberculosis are: persistent cough, undue fatigue, loss of weight, pleurisy and blood-spitting.

18—Rest is the only treatment of tuberculosis that has stood the test of time.

19—The curability of the disease is an established fact.

20—The establishment of clinics would do much to overcome many of the present handicaps.

21—The clinics, besides being the means of offering free consultation, obtaining early diagnosis, and re-examination of patients, would, perhaps, do more than anything else to acquaint the public with the essential points concerning tuberculosis.

22—Finally, tuberculosis is a disease which concerns us all—medical and laity—and every community should be made to feel the necessity of doing its part in solving many of the problems which are within its bounds.

FURTHER REMARKS ON "GROUP PRACTICE"

Read Before the Seaboard Medical Association of Virginia and North Carolina, December, 1921

By SOUTHGATE LEIGH, M. D., F. A. C. S.
Visiting Surgeon and Gynecologist,
Sarah Leigh Hospital and Clinic
Norfolk, Va.

Of late the question of "Group Practice" has received considerable attention on the part of the medical profession.

At the last meeting of this Society, I took occasion to discuss the subject rather briefly and was gratified by the general interest shown by the members present. The meeting, however, having been rather slimly attended, it may be proper to read a few extracts from the paper presented at that time.

"The rapid advances made in the science and practice of medicine and surgery during the last few years, while eagerly welcomed by the profession, have nevertheless presented a serious problem which will require much effort to solve and arrange in a practical way.

"The truth of the matter is that medicine has grown to be too big a science to be handled by the old and time honored methods.

"Tremendous strides in development have been made, medical knowledge has greatly increased in volume, and the facilities for the investigation and treatment of disease have been widely expanded.

"There is no question about the fact that the conscientious men of the profession have been in a quandary to know how to take care of this advanced situation in a satisfactory manner.

"Specializing, starting many years ago, has, of course, rapidly developed until now in every important center there may be found competent men confining themselves to any one of a number of limited lines of endeavor.

"These men are making good, are getting better results from their ability to concentrate on more limited fields of work, but the problem in a way is becoming still more complex.

"The trouble about a specialist is that he sees the case entirely too much from the viewpoint of his specialty. However broad a man he may be, however hard he may try, he nevertheless cannot help being somewhat narrow in his medical ideas and practice.

"Only too often the patient goes to one specialist when he may need a different one or both. It is hard for a patient to differentiate between medicine and surgery.

"And even the most sensible of patients do not understand why they have to be sent from one place to another, feeling that the man whom they consult should take care of the entire situation.

"But what can the conservative medical man do? He realizes that these various examinations and investigations are often necessary, and he cannot properly do them all himself.

"It is to meet this very situation that the plan of group practice has of late, in certain sections, been developed. It is not in the least a new thing, but simply a development which is being forced on the profession by the necessities of the times.

"It means the grouping together, in intimate professional and personal relationship, of several men specialziing in different lines.

"The ideal arrangement is to have each specialty represented, and to have the group associated in the same offices and in the same hospitals.

"If it should not be feasible to have so complete an arrangement it is of course necessary to have the principal ones such as surgery and gynecology, internal medicine, urology and obstetrics together with the necessary X-ray and laboratory workers.

"To be successful the members of the group must work together in the most intimate manner and with the greatest interest and harmony. They must feel that the patients coming to the group belong to them all, and must have the attention of all if necessary.

"The great and overshadowing advantage lies in the practicability of frequent and informal consultations, both in the offices and in the hospitals.

"The advantages to the professional men lie in their ability to make better and quicker diagnoses, and to give more thorough and more satisfactory treatment.

"For the patient, in addition to the mutual advantages, already mentioned, there is much saving in time and expense. Although best, it is not absolutely necessary that the doctors comprising a group be

in partnership. It is, however, essential that they be closely associated as regard office and hospital arrangements.

"With necessary modifications the plan can be put into effect in the country districts, and I feel that certainly in a few years the country doctors may be forced to resort to it.

"On first thought such an arrangement for country practice may appear to be impossible. The solution, however, will come eventually through the proper functioning of the local medical societies.

"In counties where favorable conditions exist, and it should be so in a large proportion of them, the development of the modified group practice can be worked out without much difficulty.

"Each county, or section, should have an X-ray machine. Let one man do that work along with his general practice, and with the understanding that he will make such examinations for all of the other doctors. Let another man develop a small laboratory where urgent and essential work may be done on the same terms. In a similar way have one man equip himself for difficult obstetrical work, also along with his general practice, but to be ready to help the other practitioners when needed. And so with children, urology, and emergency surgery.

"This partial specializing will help the conscientious medical man who nowadays knows that it is impossible for him to keep up in all departments of the profession. He can, however, while doing general family work, equip himself both by study and the necessary appliances in one particular line, calling on his colleagues to aid him in those severe or difficult cases belonging to other special departments.

"The only obstacle in the way is the lack of cordiality between doctors, unfortunately existing in certain communities. Our county societies are, by the frequent bringing of the men together, gradually doing away with such unpleasantness. We are finding out rapidly that the other man is not such a bad fellow after all. Each of us has his imperfections and short-comings, but if we realize fully how short life is, and how much we may accomplish by united effort, such minor matters as envy and jealousy will soon be overlooked."

The foregoing extracts give a brief view of the situation regarding Group Practice one year ago.

Since that time many groups have been developed or established, some complete and others partial.

Some consist of men in various lines working together in the same institution but with no close relationship between them.

The subject has, during the past few months, evoked a great deal of interest throughout the entire country, and this interest finally resulted in an informal and more or less private conference being held in Philadelphia during the meeting of the American College of Surgeons.

To the conference were invited representatives of twenty - five groups scattered throughout the country.

The meeting was presided over by Dr. Lower of Cleveland, representing the Crile Clinic, and was ad-

dressed by such men as W. J. Mayo of Minnesota, Mercer of Pittsburgh, Codman of Massachusetts, Johnson of Oregon, Guthrie of Pennsylvania, Harbin of Georgia and Thoring of Texas.

The utmost frankness was in evidence throughout the meeting, and every speaker seemed determined to do his part in explaining the various failures as well as successes, with the reasons for the same.

There seemed to be a strong sentiment that the "Group Method" was a necessity on account of the bigness of the problems before the profession of today, and that every effort should be made to devise ways and means whereby groups could successfully function.

At the outset it was made plain that every group formed for the purpose of making money had met with early failure and that the predominant idea which must actuate the members of all successful groups is service to the patient, to the public, a joint and combined effort for the best investigations and the best treatment.

However, in furnishing such service, business methods must be employed, the most up-to-date and modern, otherwise the organizations will have no substantial foundation to build upon.

One of the groups reporting at the conference adopted as its policy the standard of a successful shoe corporation of New York, "Justice, Co-operation, Work, Economy," and as a capstone, "Service to the Public."

The same group in selecting new members based their selections on the following qualifications in the order named:

1. Character.
2. Good judgment.
3. Knowledge.
4. Personality.
5. Technical skill.

Like all of his talks Dr. Mayo's was both delightful and original.

Quoting his own words:

"My brother and I have been accused of being the father of group medicine. We did not know it. We did not realize it—it was simply a question of trying to do better work, and of adding men to the force who had knowledge which we did not possess."

And again, "The difficulty which we have in the practice of medicine at this present time is, we have too much knowledge; it is not organized. It seems to me that one of the troubles with our medical schools is, we are not teaching our boys to take care of the sick people."

And again, "Group medicine, therefore, does not consist merely in having everything that can possibly be done in the way of examining the patient, but there must be something essential behind that if we are going to be able to make correct diagnoses by the lease expensive methods we can from the standpoint of the patient."

And further, "Of course, our scheme is a little different from most of the schemes in existence. I am on a salary; my brother is on a salary. All of the moneys that are earned over and above a just return to those who are in the group go to create endowments. We take it that we are the trustees of a sick man's money, that we have got a right to do with the money all those

things that are best for his interest, and then the balance of it should be expended to take better care of his descendants. Then these endowments are made permanent."

And in conclusion, "We have wandered on our way, wondering how we arrived at a certain point, a little surprised that we arrived there and wondering why it took us so long. We have zig-zagged up and down and across, thinking that it would finally lead to a certain place—not really because we started for that place, but because in the course of walking back and forth, first on this quarter and then on that, we arrived there, and we are still on our way."

All of the speakers agreed that since forming their groups they have been able to do much better work than before, make more thorough examinations and saving the patients both time and expense.

The speakers reported clinics located in both large and small communities and in both classes the advantages were the same.

Much stress was laid on the opportunities for frequent and informal consultations both in office and hospital cases, and the fact that without loss of time, and incurring of additional expense the patient automatically received the attention of every member of the group whose special advice or care might be needed.

Dr. Mayo in his remarks touched also on the problem of the country doctor, noted in our former paper quoted before, and mentioned the fact that the average age of the country doctor is now around sixty years, meaning, of course, that the present day graduate is fearful of the country on account of lack of facilities and need of co-operation. Dr. Mayo especially suggested the advisability of having certain general equipment for the rural sections such as laboratory, X-ray and library, to be owned by the doctors together or by the community and to be open to all.

With the alarming decrease of recruits for country practice, the time is not far distant when radical steps will have to be taken to care for the sick in the rural sections.

Better compensation and good roads will be most helpful and attractive, but we still have the great difficulties which are naturally confronting the recent graduate and which make him fearful that he cannot do conscientious work without co-operation and proper facilities.

I believe the modified group practice referred to by me before will go a long way toward solving this urgent and difficult problem.

One of the speakers at the conference mentioned a good point which his clinic is working out successfully, and that is the placing of its facilities as far as possible at the disposal of the general practitioners both in city and country. This could be developed in such a way as to greatly relieve the burden of that class of physicians.

The public is rapidly getting wise to the situation and demands that business methods be used more and more in the profession.

They know perfectly well that no one doctor can cover the whole field of medicine and surgery, except in a most superficial way. They expect and have a right to demand thorough examinations and up-to-

date treatment, and are getting tired of being sent from place to place to get such attention.

Dr. Mayo, in his talk, called attention to the tendency in some directions, to make unnecessary examinations, when correct diagnoses are easy without them.

Coming as it does, from such a high authority, this should be taken as a warning, especially by those who are inclined to mechanically put every case "through the mill," so to speak.

In this, as in everything else spelling success, common sense is the key-note of the situation, to which may be added honesty of purpose and principle.

With a further development of groups, quackery, that evil creature which preys upon the ignorance and superstitions of the people, will gradually be banished. Through the smooth working of group practice, the people will be enlightened, just as they are to a considerable degree already in certain medical centers like Boston.

In the nature of things, the average specialist, as the years go by, becomes more or less narrow, since his efforts are concentrated on his own department. Specialists grouped together are constantly broadening out, the daily and hourly conferences with men in other lines influencing greatly their decisions in both diagnosis and treatment.

The patient applying to a group is referred first to the department to which he appears to belong. There a preliminary history is taken, first examination made and a decision reached as to what further investigations are to be undertaken. The laboratory and X-ray departments are called on if needed, and other men in the group consulted for conditions in their special lines. Without loss of time, and without formality the patient in an orderly way receives the attention of as many men and as many facilities as may be required to arrive at the correct diagnosis and administer the proper treatment.

Many cases, which go first to the medical department, after investigation prove to be surgical, in part or in whole, are so looked after.

In order to be successful, the utmost harmony must exist in every group. Each member must take the deepest personal interest in every patient, as well as in the thoroughness of the work and the complete success of the undertaking.

Group Practice does not mean ease and financial gain.

It does, however, if successful, mean extreme satisfaction in the feeling that the patients are being given the best service known to science.

Note:—During the 1922 meeting of the A. M. A. at St. Louis, there was formed an organization of the Group Clinics of America, with Dr. T. H. Halsted, of Syracuse, N. Y., President, and Dr. A. P. Howard, of Houston, Texas, Secretary.

ANNOUNCEMENTS AND COMMUNICATIONS

January 31, 1923.

The West Virginia State
Medical Journal,
Huntington, W. Va.

Gentlemen:

We are in receipt of your letter of the 29th inst., by Dr. Bloss.

We regret very much the necessity of withdrawing our advertise-

ment from your paper, but we have been unable to check any results from the time of its insertion to date. We felt when we started its use there would be a number of inquiries at least due to the absence of private sanatoria in the state of West Virginia, and our close proximity.

It might be that a short news article calling attention to the facilities at Rocky Glen Sanatorium would assist in directing attention to us. If you can offer any suggestions, we shall be glad to have them. Can you tell us the approximate number of beds available in West Virginia for tuberculous patients and the annual death rate or any other information pertinent to the matter? We feel we ought to at least draw a patient or two from West Virginia.

Our institution has a staff composed of trained and experienced tuberculous workers and we have every facility for the latest and most accepted treatment of Pulmonary Tuberculosis. The writer was a member of the staff of the Ohio State Sanatorium at Mt. Vernon for ten years as was also Dr. Mark, the Medical Director; and Dr. D. G. Ralston, Resident Medical Director, has years of experience in this work. Our institution specializes on individual care and we offer a service which no sanatorium built on the ward plan can give. We have admitted and treated during the past few years more than 1200 patients and while West Virginia is a new State to us, we see no reason why our institution does not mean a great deal to patients wishing to enter a private sanatorium. We will accept both Absolute Bed Patients or Ambulant Patients and our sanatorium fee covers everything necessary for the treatment of pulmonary tuberculosis.

If you could furnish us with a list of Public Health Nurses or give the above matter some publicity, we would appreciate it very much and if we can trace any benficial results, we will reinstate our advertisement with you.

Very truly yours,

H. A. PHILLIPS, Supt.

January 26, 1923

DR. J. R. BLOSS, Editor
West Virginia Medical Journal,
Huntington, W. Va.

My dear Dr. Bloss:

I am writing to call your attention to a feature of the program of the coming annual meeting of the Ohio State Medical Association—Dayton, Ohio, May 1, 2 and 3—which may be of special interest to some of your membership.

The Eye, Ear, Nose and Throat Section of our Association has secured Dr. Robert Von Der Heydt, of Chicago, to deliver an address on "Slit Lamp Microscopy of the Living Eye, Its Aid to Histological Research, and as a Refinement in Ophthalmic Diagnosis." This is a subject of great interest to ophthalmologists, now coming to their attention through the influence and efforts of men like Dr. Von Der Heydt, who is one of the pioneer workers in this field in this country.

Dr. Alderdyce, the section chairman, feels that the Association is very fortunate in securing Dr. Von Der Heydt to present this important subject, and he hopes that not only

the physicians of Ohio, but those of adjoining states—West Virginia, Pennsylvania, Kentucky, Indiana and Michigan—will avail themselves of the opportunity to hear him.

Will you not, therefore, through the medium of your State Journal and in any other way possible, extend an invitation to your membership to hear this address on Wednesday, May 2, at 9:00 a. m., in Dayton?

Other special features of the program will include an oration on Public Health by Livingston Farrand, president of Cornell University; and an oration on Surgery by Dr. Joel E. Goldthwait, of Boston. Both of these addresses will be delivered on the afternoon of May 2nd.

With kindest regards and assuring you that we will be glad to welcome any of your members at the meeting, I am

Sincerely yours,

DON K. MARTIN,
Exeutive Secretary.

ANNOUNCEMENT

The Seventh Annual Clinical Session of the American Congress on Internal Medicine will be held in the amphitheatres, wards and laboratories of the various institutions concerned with medical teaching, at Philadelphia, Pa., beginning Monday, April 2nd, 1923.

Practitioners and laboratory workers interested in the progress of scientific, clinical and research medicine are invited to take advantage of the opportunities afforded by this session.

Address inquiries to the Secretary-General.

SYDNEY R. MILLER, Pres.
Baltimore, Md.

Frank Smithies, Sec'y-Gen'l.,
1002 N. Dearborn St.
Chicago, Ill.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

Junior Medical Officer and Assistant Medical Officer (Roentgenology; Psychiatry.)

Medical Officer (Tuberculosis; Neuropsychiatry; Internal Medicine and Diagnosis; Physiotherapy).

Applications will be rated as received until the close of business on July 3.

The examinations are to fill positions in the Indian Service, the Coast and Geodetic Survey, the Public Health Service, and the Veterans' Bureau.

Competitors will not be required to report for examination at any place, but will be rated on the subjects of education and training, weighted at 30%, and experience, weighted at 70%.

Definite specification as to education and experience requirements, and salaries and allowances, are given in the printed announcement, which will be furnished upon request.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil service examiners at the post office or customhouse in any city.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

Editorial Office: 804 Lincoln Place, Huntington, W. Va.

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TREASURER: Hugh G. Nicholson, Charleston.

DELEGATE TO A. M. A. 1922-1923: H. P. Linsz, Wheeling; Alternate, J. E. Cannaday, Charleston.

DELEGATE TO A. M. A. 1923-24: Jas. R. Bloss, Huntington; Alternate, M. V. Godbey, Charleston.

COUNCIL

FIRST DISTRICT: H. P. Linsz, Wheeling, two-year term; C. G. Morgan, Moundsville, one-year term.

SECOND DISTRICT: C. H. Maxwell, Morgantown, two-year term; J. C. Irons, Dartmoor, one-year term.

THIRD DISTRICT: L. H. Forman, Buckhannon, two-year term; C. R. Ogden, Clarksburg, one-year term.

FOURTH DISTRICT: J. E. Rader, Huntington, two-year term; G. D. Jeffers, Parkersburg, one-year term.

FIFTH DISTRICT: H. G. Steele, Bluefield, one-year term; J. Howard Anderson, Marytown, two-year term.

SIXTH DISTRICT: R. H. Dunn, Charleston, one-year term; B. B. Wheeler, Beckley, two-year term.

REPUTATION

We sometimes speak of winning a reputation as though that were the final goal. The truth is contrary to this. Reputation is a reward, to be sure, but it is really the beginning, not the end of endeavor. It should not be the signal for a let-down, but, rather a reminder that the standards which won recognition can never again be lowered. From him who gives much—much is forever expected. Reputation is never completely earned—it is always being earned. It is reward — but in a much more profound sense it is a continuing responsibility. That which is mediocre may deteriorate and no great harm be done. That which has been accorded a good reputation is forever forbidden to drop below its own best. It must ceaselessly strive for higher standards. If your name means much to your public—you are doubly bound to keep faith. You have formed a habit of high aspiration which you cannot abandon—and out of that habit created a reputation which you dare not

disown without drawing down disaster. There is an iron tyranny which compels men who do good work to go on doing good work. The name of that beneficent tyranny is reputation. There is an inflexible law which binds men who build well, to go on building well. The name of that benevolent law is reputation. There is an insurance which infallibly protects those whose reason for buying is that they believe in a thing and its maker. The name of that kindly insurance is reputation. There is no higher incentive in human endeavor that the reward of reputation—and no greater responsibility than the responsibility which reputation compels all of us to assume. Out of that reward and out of that responsibility come the very best of which the heart and mind and soul of men are capable. —Exchange.

THE PROPOSED NEW FEDERAL DEPARTMENT OF HEALTH, EDUCATION AND WELFARE.

Continually the mail brings to the editor's desk innumerable pieces of literature from the executive secretary, the managing vice-president, etc., of the American Society for the Control of This, for the prevention of That, or the conservation of the Other. It has sometimes seemed to be a great problem to find another society to organize.

When we begin to go over the roster of the officers, directors, patrons, life-members and so on, it would appear that the prominent men of our profession, the ministry and the law are surely some "joiners."

We wonder just how much time these busy men find to give to these very laudable organizations. Again we wonder just how much good they do — how many people they really reach.

All will admit that there is much to be accomplished in the matter of the health and physical welfare, as well as education, of the citizenry of our country. For some years there has been noticeable a gradually growing sentiment and demand for a department of health with a secretary in the President's cabinet.

We admit without argument that the greatest asset of a nation is its health, its greatest liability a lack of it. Still it has been impossible apparently to arouse enough favorable sentiment to secure this proposed legislation.

The large numbers of national associations of one kind or another relating to health, et cetera, shows the need for some such department under which shall be grouped all of the correlated activities of the Federal government along these lines. It is now proposed to undertake some definite steps to bring this about.

The February issue of the Kentucky Medical Journal contains an editorial which sets forth succinctly a report of a recent conference held in Washington with this end in view.

"In Washington during the war, the best business executives of the country brought the defects of the national administrative system to a public knowledge that had never before existed. Since that time, trained minds have been concentrating on such a reorganization of the federal departments as would enable them to function both more effectually and, what is quite as im-

portant, more economically, so that taxes may be reduced. Suggstions along these lines effect practically every department of the government, but we will only consider those which would make changes in federal administration as it effects the public health and allied problems.

"In order to do what should be done by government, it is really a pity that we have to consider what has already been done. Most of the federal efforts along public health and educational lines have been haphazard—the result of some movement or craze, and such things must result in lopsided efforts, putting undue emphasis on first this and then that subordinate movement, instead of calmly surveying the entire field, visualizing its needs, and then fitting the machinery of government to their solution.

"At the conference recently held in Washington, the Postmaster General, Dr. Hubert Work, recently President of the American Medical Association, and himself one of the most distinguished and successful practitioners of medicine of the country, made a brief statement that was full of real force. He said it must be recognized that most of the problems affecting both public health and education were matters which could only be solved under the police powers reserved to the states; that the federal functions were relatively small, and that it would not require a large and complicated department to head up these interests in the federal government so that the whole national education and health movement could be coordinated. From Washington there would be control of maritime quarantine to prevent the introduction into the United States of epidemic diseases from without. The other great problem under federal control is interstate quarantine to prevent the spread of disease from state to state along the lines of travel, which are now so important. Besides these, the federal government should, in its laboratories, conduct and encourage investigation in all those things which effect public and private health, especially in the larger problems that are now the causes of ill health in large sections of the country, or amongst considerable proportions of the population. They should have a few expert mobile units that may be called into consultation by affected states. Through conferences of state and local officials having a common problem they could help to focus attention with a view to its solution. Upon the invitation of states they could conduct demonstrations of methods for the prevention of disease, especially emphasizing that it was not the function of the federal government to interfere with the treatment of diseases which already exist, that it had nothing to do with the regulation of the practice of the healing art in any of its branches, and never should have.

"General Sawyer, the personal representative of the President, stated that it was the purpose of the committee on reorganization of the federal departments, to recommend to the Congress the establishment of a Department of Education, Health and Welfare, with a secretary in the cabinet, and an assistant secretary which would consist of four bureaus—education, health,

welfare, and the Veterans' Bureau. The problems presented by these four bureaus are naturally inseparable, and the heads of such departments would be a National board of strategy which would help do the things the country needs. It is proposed to transfer to the new department all the existing activities of the federal government along these several lines just as they are, taking over their personnel and functions, headed by their technical staffs and chiefs, merely taking them from their present environments, which are frequently and entirely inimicable to their successful operation, and putting them where they can work sympathetically together. It is interesting that this same thing has been done by all the greatest governments in the world, and it is felt that the United States has lagged along behind the other States in recognizing the importance of its great asset—its human beings.

"It is inconceivable that there can be any great objection to this program except upon the part of those who are the enemies of progress in government. It is not the purpose of the new department to enlarge the federal functions, nor to interfere with the full and free exercise of the police powers of the states in these respects. It is not the desire to build up a great federal organization, but rather to simplify and concentrate federal bureaus with a view to getting rid of the chaos and duplication that now exist in Washington. The proposed reorganization would decrease the expenses and increase the efficiency of every bureau involved.

"It is especially recognized that the United States Public Health Service should be transferred to the new department as it exists, carrying with it its honorable traditions.

"At the invitation of General Sawyer, representatives of the medical and health professions from all sections of the country gathered together in Washington in January and it was interesting to see how unanimously and how gratefully they all received this great practical plan for progress in the efficiency of our federal government. It was realized by all those present that the records of the draft had shown that a great percentage of our young manhood and womanhood were growing up into adult life untaught as to the most important problems that would confront them as citizens, unprotected from the most serious defects that could impair their usefulness, and it was the unanimous desire of those present, as we all felt it would be practically the unanimous desire of the whole citizenship of the country, that this movement be carried through to successful conclusion.

"To this end, we invite our readers to bring these matters to the attention of the various State Medical organizations of which they are members, and especially to the public press, which in this country so largely molds public opinion, with a view to bringing the attention of the members of the Senate and House of Representatives of the United States the feeling on the part of the public that this great and entirely nonpartisan movement which has the approval of the present administration, as it has had of the last three, should be put upon the

statute books at the earliest possible moment."—Kentucky Medical Journal.

FINISH YOUR PAPERS AND ADDRESSES

Each year the Journal is supposed to publish a full and complete record of all the transactions of the State Association. This has been an impossibility. The editorial intention has been of the very highest order. But—

There have been papers presented at meetings each year which have never been delivered to the Secretary or the Journal. The authors have wished to take them home to make "a few little corrections before publication; I will send it back in a few days, next week sure!" In some cases it has been three years. This has been particularly exasperating this year since we have had the text of the discussions to publish with the papers. Sometimes two or more papers have been discussed jointly. It is certainly unpleasant to have one paper in the text and the discussion of two or more. (Parenthetically the publication of the discussions has made us personally determine to be a listener. Some power the giftie (did) gi'e us, to see oursilves as ithers see us).

The papers, addresses and essays are the property of the State Association. The texts should be complete and delivered to the Secretary after being presented at the meeting. One man was frank enough to say that his article was too good for such a limited circulation. (Ibid Bobby Burns.)

The time for the journey to Beckley approaches. I am told that the altitude, atmosphere and our environment will compelloratory of marvellous eloquence and convincing power in discussion. Please see that it is all written out fully and all t's crossed and i's dotted and no matter what flights you soar to, be sure to leave the text with Bob.

SUPPORT OF ADVERTISERS

Have the members of the Association ever given a thought to just what the advertisers in our Journal mean to us, I wonder?

The Journal reaches you each month and you look it over. Either you read it or put it in the wastebasket with no thought as to just what it has cost to bring it to you.

It might be a matter of interest if you knew that the two dollars only pays for about sixty percent of the actual cost of printing and mailing your Journal to you. The balance of the cost of printing, together with postage, stationery, editor's salary, etc., must be secured from the advertising space sold.

If you will read the Announcements and Communications section you will find a letter there which is self-explanatory. This letter is published in order that our members may see how advertisers regard space in our Journal.

A number of times before now, in the past few years, attention has been directed toward this question. Again let me insist that our membership at least direct letters of inquiry to those firms using our pages as a medium to present their products to the physicians of West Virginia. When you are in the market for anything they make it a business to supply us.

COUNTY SOCIETY REPORTS

Dartmoor, W. Va.,
February 5th, 1923.

Editor Medical Journal:

The Barbour-Randolph-Tucker County Medical Society met at Elkins, W. Va., in the Y. M. C. A. Building, on January 25th, 1923, at 1 p. m., the following members and visitors being present: Drs. Wilson, Rohrbough, Butt, Lyon, Perry, Pierce, Talbott, Golden and Irons; Visitors: Rev. F. H. Barron, D. D., Prof. W. W. Trent, Supt. Schools of Elkins, and Dr. Deitrich of the City Hospital.

In the absence of Dr. Hamilton the president-elect, Dr. Pierce, presided. The minutes of the previous meeting were read and approved. Treasurer's report for 1922, showing a balance in the treasury of $57.35 was read and approved. Under suspension of rules Dr. W. T. Wimbish of Coketon was elected a member of the Society.

Rev. Barron gave a very interesting talk on "United Front," which was cordially received by those present. Dr. Barron said that there were so many isms, both medical and theological, that it was imperative that we investigate carefully, that we may be able to differentiate the good from the bad, the spurious from the true. He demonstrated by his talk that he was not only familiar with the isms in theology, but with the isms in the so-called treatment of diseases. He said he fully recognized the power of mind over body, or matter, but yet he was not by any means a believer in spiritualistic theories, nor of the reality of Couieism. In his talk he emphasized the fact that the ministry of the preacher and the physician had many duties in common; the one ministered to the spiritual that he might get the best out of men, while the other ministered to the physical that he might get the best, both could accomplish greater good by a combined effort. Both should secure a broad vision and accept only the real and true, and co-operate in producing the best.

Dr. Golden gave a talk on "Some of the Things That Should Interest the General Practitioner." One thing that is needful is more care in gynecological treatment in things common, and if properly managed may be easily cured, but if neglected may result in serious trouble. These minor troubles may be overlooked, and the careful physician should be on the lookout for these common ailments of women lest they fail to know of their existence.

He also called attention to the greater care necessary in the repair of the ruptured perineum, lest these may impair function of the muscles, especially those functioning about the Anus. He also cautioned against the careless use of the Uterine Curet. These may cause increase of infection in an already infected uterus; there also is danger of a puncture of the uterine wall, unless greatest care is used. Dr. Golden emphasized the fact that unless in skilled hands, the curet was a dangerous instrument to be used.

The Society then adjourned to meet again in April in Elkins.

J. C. IRONS, Secretary.

February 8th, 1923.

A regular meeting of the Cabell County Medical Society was held at

the Hotel Frederick on the evening of January 25th, the President, Dr. R. J. Wilkinson, presiding. The attendance numbered 31, being the largest meeting of the present year.

There being no alterations or amendments to minutes of the previous meeting, they stood approved as read.

The Secretary read the application of Dr. Walter N. Rowley for membership in this Society, and after a motion by Dr. Matthews, which was seconded by Dr. Bobbitt, Dr. Rowley was unanimously elected to membership.

The Scientific Program of the evening consisted of two excellent papers, one by Dr. Earl B. Gerlach on "Some Observations on the Present Epidemic of Influenza," and the second by Dr. R. J. Wilkinson on "Chronic Infections of the Cervix." Both papers being excellently presented on timely subjects, they provoked a very active discussion.

Dr. Swan, reporting for the Auditing Committee, reported a balance in the treasury of $173.70. On motion of Dr. Belcher, seconded by Dr. Marple, the report of the committee was accepted and the committee discharged with thanks.

Dr. Bobbitt, as a special treasurer, offered his report, the keynote being that the funds were very slow in coming in and that unless the members manifested more interest the purpose of the special fund would fail.

On motion of Dr. Hawes, which was seconded by Dr. Wells, a committee consisting of Drs. Rader, Vinson and Earl Gerlach, call on Representative Neal and if possible ascertain his views on the proposed bill before the Legislature which has for its purpose the licensing of chiropractors.

The proposed amendment to the By-Laws which advocated an increase of the dues to this body from $7.00 to $10.00 failed of passage.

There being no further business before the Society, the meeting was duly adjourned to meet on the evening of February 8th, 1923.

OSCAR B. BIERN, Sec'y.

Approved:

R. J. WILKINSON, Pres.

February 22, 1923.

A regular meeting of the Cabell County Medical Society was held in the assembly room of the Hotel Frederick on the evening of February 8th, 1923, with the President, Dr. R. J. Wilkinson, presiding.

The minutes of the previous meeting stood approved as read there being no corrections or additions.

Dr. Byrd Hunter presented a case of "Aleukemic Leukemia" that had been under his care. The case was well presented and showed besides some interesting points of this rather rare malady, the thoroughness of modern medicine.

Dr. E. D. Wells, replacing Dr. Hubbard on the program, presented a most interesting paper on "Intranasal Block Anesthesia in Tonsilectomy," and Dr. R. M. Bobbitt presented a paper on "Differential Kidney Function." Both of these papers provoked a very lively discussion, the majority of the members present participating.

It was announced by the Secretary that at the next regular meeting the Program committee had arranged a joint meeting with the Cabell County Dental Society.

Bills as presented were ordered paid.

Members present, 29.

There being no further business, the meeting stood adjourned to meet on the evening of February 22nd, 1923.

OSCAR B. BIERN, Sec'y.

Approved:

R. J. WILKINSON, Pres.

Bluefield, W. Va.,
November 23rd, 1922.

The Mercer County Medical Society met in the assembly room of the Chamber of Commerce at 8:00 p. m. with Dr. Rogers presiding.

Dr. W. H. St. Clair being detained Dr. Kirk was asked to open the discussion on Cancer. Dr. Kirk dwelled quite extensively on this subject, bringing out many new thoughts on the subject, explaining how important it is to make an early diagnosis in these cases. He said the younger physicians are making a diagnosis earlier than the old ones.

Dr. Scott had very little to say on Cancer of the Digestive Organs.

Dr. Rogers answered very briefly three questions: Is cancer contagious? Is cancer inherited? Is cancer a blood disease? by saying no, then he gave us a very interesting and instructive talk on the treatment of this malady by X-Ray and Radium. Dr. Stevens, our visitor, from Eckman, W. Va., said he enjoyed the discussions on cancer very much and thanked us for inviting him to be present.

This being the time for our annual election the following officers for 1923 were elected: President, Dr. J. H. Bird, Rock, W. Va.; First Vice President, Dr. A. H. Hoge, Bluefield, W. Va.; Second Vice President, Uriah Vermillion, Athens, W. Va.; Secretary, Dr. H. G. Steele, Bluefield, W. Va.; Treasurer, Dr. C. T. St. Clair, Bluefield, W. Va.; Censor for three years, Dr. J. R. Vermillion, Princeton, W. Va.; Delegate to the State Meeting at Beckley, Drs. C. A. Easley, C. M. Scott and W. H. Wallingford.

The bills presented were allowed.

A motion was duly made and seconded that the annual dues of this society be raised from six to ten dollars ($10.00) a year, beginning January 1st, 1923. That will mean one dollar ($1.00) less for members outside of the state and those not desiring defense protection. This motion is to be voted on at the next regular meeting and if carried the Secretary will be empowered to employ a stenographer, when advisable, to take down the minutes of the meetings, these to be mimeographed and mailed to each member.

Dr. Reynolds told us a very interesting story of his experience calling upon a chiropractor.

There were three visitors and sixteen members present.

Adjourned at 10:07 p. m.

H. G. STEELE, Sec.

Bluefield, W. Va.
January 24th, 1923.

The Mercer County Medical Society met in the Chamber of Commerce room with Vice President R. O. Rogers presiding.

A report of the November meeting was read and adopted.

The newly-elected president, Dr. J. H. Bird, of Rock, took the chair.

No one reporting any clinical cases the first paper read was "Pregnancy Causing Pyonephrosis,"

with report of one case by the Secretary, which was freely discussed by Drs. Rogers, Hoge, Slusher, Kirk and others. This was closed by the writer in answering a few questions.

Next Dr. J. C. Reynolds read us a very instructive paper on "Value of Some Laboratory Tests." This was discussed by Drs. Vass, Rogers, Peery and others and closed by Dr. Reynolds.

The committee on Public Health and Legislation was appointed by the President as follows: Drs. Vass, J. R. Vermillion and S. R. Holroyd.

Dr. Vass reported that Dr. Littlejohn, the Health Officer for Bluefield, will not treat any patients.

A motion was made by Dr. Hoge, seconded by Dr. Peery, that the voting on raising of the dues be postponed to the February meeting. This was unanimously carried.

The program for the February meeting was announced as follows: Drs. Vass, Horton, Wallingford and Sam Holroyd.

A motion was made and carried that the next meeting be held in Bluefield.

Two visitors and ten members were present.

Dr. G. G. Rhudy's application for membership in this society was received.

Adjourned at 10:10 p. m.

H. G. STEELE, Sec'y.

Special meeting of the Mingo County Medical Society was called by President Slayden, at Health Department office, Patterson building, Saturday, December 16, 1922, 7:45 p. m., for election of officers for 1923.

Members present: Drs. Slayden, Salton, Burgess, Millard, Conley and Malott. Visitor, Dr. E. P. Stepp, Kermit.

Meeting called to order by President Slayden, and regular reports dispensed with to take up election.

Dr. R. A. Salton nominated Dr. J. C. Lawson for President. Seconded; nomination moved to be closed and so voted, Dr. Lawson unanimously acclaimed President for 1923.

Dr. Salton nominated for Vice President. Nomination made unanimous by vote of the Society and Dr. Salton duly elected Vice President for 1923.

Dr. R. J. Malott nominated for Secretary and Treasurer. Seconded and voted unanimously for 1923.

Dr. J. B. Millard nominated for Board of Censors, for three-year term to fill place of Dr. W. H. Burgess whose term expires with this year. Board of Censors now consists of: Dr. G. T. Conley, term 1922, 1923, 1924; Dr. J. C. Lawson, term 1921, 1922, 1923; Dr. J. B. Millard, term 1923, 1924, 1925.

Application of Dr. E. P. Stepp, of Kermit, for membership in the Society made in person. Moved by Dr. Malott that rules of censorship be suspended and that this application be considered in open meeting at once. Seconded, and voted in affirmative. Dr. Stepp elected to membership in Mingo County Medical Society.

Meeting adjourned by President Slayden to the Vaughan Hotel for the annual banquet.

The Committee on Banquet, Drs. Salton, Irvine and Lawson, had arranged for a really delicious dinner, with excellent fruit punch, and twenty men gathered around the table to enjoy the feast.

The program arranged by President Slayden and Dr. Malott consisted of special papers by two out-of-town doctors, and reports by the Society officers.

Dr. Slayden recounted a few of the accomplishments of the Society during 1922, among them being the improvement of the water and milk supply in Williamson; the handling of twelve cases of illegal practitioners and "quacks" and one unethical extortion case by a licensed physician; the securing of a relief man for some of the members for their summer vacation and the endorsement of a venereal disease clinic in Williamson, to be opened soon, through local and governmental agencies; also the increase in membership in the Society and the greater percentage of attendance at meetings.

Dr. R. J. Malott was then called on to say a few words about the Full-time Health Department which has been in operation in Mingo County for a little more than a year. He laid stress on the fact that education was the fundamental problem of a Full-Time Health Department and described the work done in the schools of the county, directed along the line of increasing health among the children and imbuing them with the proper regard for their own health and that of their neighbor. Dr. Malott also spoke very earnestly about the cooperation between the doctors of the county and the Health Department, showing that at no time does a Full-Time Health Department wish to detract from the practice of any physician, but on the contrary is constantly advising the people to see their own physician early, in order to avoid serious illness. The whole purpose of the Health Department being to reduce the morbidity and mortality rates and make our county a better, healthier place in which to live.

President Slayden next called on Dr. Tunis Nunemaker of Portsmouth, Ohio, a former member of this Society and for a long time its efficient Secretary and Treasurer. Dr. Nunemaker read a splendid paper on the "Feeding of Infants," a copy of which is inserted here for record.

Much valuable discussion followed his paper and several points in question cleared up.

Dr. J. Howard Anderson was called on for his paper on "Cancer." He had come from way over at Marytown for this meeting and the Society appreciated his courtesy and genuine fraternalism in so doing. His excellent paper is likewise appended hereto for record.

Both of the visiting doctors kindly permitted the Society copies of their papers to be sent to the various members of this Society who could not attend the banquet.

After discussion of the scientific and practical phases of the material so ably presented, the banquet adjourned at 11:55 p. m.

RALPH J. MALOTT, M. D.,
Secretary and Treasurer.

MINGO COUNTY MEDICAL SOCIETY

At the meeting held January 25th at the Williamson Hospital, strong resolutions were passed, commending the accomplishments and efficienty of the Full-Time Health Department of Mingo County, and

placing the Society on record as being very much in favor of the efforts of the Department being continued as during the past year. A committee of five prominent physicians was appointed by the President, to wait upon the County Court and advise them of the interest of the medical profession of Full-Time Health Work in this county, and to bring to their attention the following resolution passed at yesterday's meeting.

"Be it herewith resolved, that in view of the excellent service rendered by the Mingo County Full-Time Health Department during its year of operation, and with the great benefits to the people of our county which we know to have accrued through its efforts in cooperation with the doctors of this county, in bettering health conditions and in keeping down diseases, that the Mingo County Medical Society respectfully requests the County Court to continue this Department and its full activities, and that a committee of five members be now appointed to wait upon the County Court at its next meeting to present this resolution and to urge the Court to take favorable action in accord with it." Vice President Dr. R. A. Salton appointed the following prominent physicians to act on this committee: Chairman, Dr. Thomas Slayden, Dr. G. B. Irvine, Dr. G. T. Conley, Dr. W. H. Burgess and Dr. L. F. Boland.

Another resolution of importance was concerned with the proposed bill in the Legislature designed to create a special board of chiropractic examiners, to license members of the cult to treat disease in this state.

"Whereas certain bills are now pending in the Legislature, proposing to create by legislative enactment, a special board of chiropractic examiners for West Virginia;

Whereas, it is the consensus of opinion of the members of the Medical Society and of the Medical Profession in general, of this county, that such measures if enacted would be a distinct detriment to the public welfare in our community and in the state;

Therefore, be it hereby resolved that the Mingo County Medical Society does record its opposition to such enactment and herewith states its opinion that the licensing of chiropractors in West Virginia would be detrimental to the best interest of the public at large, and it is

Further resolved that copies of this resolution be sent by the Secretary to Senator M. Z. White, Honorable John S. Hall, Delegate, and to the Secretary of the State Medical Association for their information."

It is now illegal for chiropractors to practice in this state, and none are located in Mingo County, due to the diligence of the special committee of the Medical Society, acting in cooperation with the county and city officials.

A pleasant surprise was afforded the doctors at the meeting yesterday by Miss Anna Trimble, superintendent of nurses at the hospital. She served a most excellent plate lunch with hot coffee, which evoked a warm vote of thanks from all the doctors.

RALPH J. MALOTT,
Sec'y-Treas.

The Raleigh County Medical Society met in regular session Thurs-

day evening, January 25th, the president, Dr. A. H. Grigg, presiding. After the regular routine business was disposed of, there was considerable discussion of the program to be presented at the annual meeting of the West Virginia Medical Association to be held in Beckley June 12-14, 1923. The secretary read several letters he had received from Dr. Ashworth relative to the program, and it was agreed that if the program as outlined by Dr. Ashworth was presented it would unquestionably be the best in the history of the state association.

The next matter of business was the question of issuing a "Souvenir Booklet" in connection with the annual meeting of the state association. It was agreed to invite the various business men of the city and county to co-operate with the local society in having various views of interest contained in the booklet. The secretary was authorized to gather the material for the booklet, present same to the printers, obtain best quotations and have the booklet printed and distributed.

The society voted the secretary the services of a stenographer to assist in any work in connection with the state meeting.

The question of entertainment for our visitors came in for much discussion and the secretary was authorized to inform the members of the association that the "boys of Raleigh" are going to give you the time of your life when you come to Beckley in June.

No further business the society adjourned to meet the fourth Thursday in February.

CHARLES S. SMITH, Sec'y.

A meeting of the executive committee on arrangements for the annual meeting of the West Virginia Medical Association to be held in Beckley June 12, 13, 14, was held Wednesday evening, January 21, in the office of Dr. J. E. Coleman, Beckley, with each committee represented. It was agreed that the society would have printed a "Souvenir Booklet," 9x12, which will contain various forms of information for the members of the association and many photographs—this booklet to be mailed to the members in advance of the meeting. Drs. J. E. Coleman, C. S. Smith and Mr. George Wolfe were appointed a committee to handle all matters pertaining to the booklet. It was agreed to extend the Boy Scouts an invitation to assist the society in entertaining the association. The committee gave the secretary the authority to engage the services of a competent, "and a real good looking lady" to have charge of the information bureau, mail and telegrams during the meeting. It was agreed to have the names of all members contributing to the expense of entertainment published in the "Souvenir Booklet." It was agreed to permit the Chairman of each committee to have the authority to transact all business matters coming under his committee. It was agreed to engage the services of the Beckley Municipal Band during the meeting. The Woman's Club was represented and agreed to give the visiting ladies a reception and tea at the Christian church the first evening during the meeting. The doctors' wives were represented by a committee and they agreed to give

the visiting ladies an auto sightseeing ride to Grand View and followed with a picnic the first afternoon and a bridge luncheon the second afternoon. Instead of having a banquet, it was agreed to have an old-fashioned barbecue at the Raleigh Country Club the second evening of the meeting, followed with an "Open House" at the Country Club. Mr. Meadows of the Beckley Theatre, was represented and agreed to have a high class musical comedy here for the first evening of the meeting. It was agreed to have the first evening beginning at 9:00 a reception and dance for the president, members and guests of the association at the Beckley Hotel. It was agreed to engage the best orchestra obtainable to furnish music for the dance and "Open House." The chairman, Dr. J. E. Coleman, has appointed the following committees:

Entertainment—Dr. A. H. Grigg, Dr. M. C. Banks.

Music—Dr. D. B. Jarrell, Dr. U. G. Cook.

Finance—Dr. G. W. Johnson, Dr. C. S. Smith.

Automobiles—Dr. B. B. Richmond, Dr. W. W. Hume.

Hotels—Dr. J. E. Coleman, Dr. A. U. Tieche.

Dance—Dr. Fred Richmond, Dr. A. H. Grigg.

Decorations—Dr. I. M. Fisher, Dr. K. M. Jarrell.

Transportation—Dr. E. S. Dupuy, Dr. J. E. Coleman.

Banquet—Dr. G. W. Johnson, Dr. J. A. Campbell.

Refreshments—Dr. M. C. Banks, Dr. J. H. Hoskins.

Programs—Dr. Robert Wriston, Dr. T. F. Garrett.

Exhibits—Dr. C. S. Smith, Dr. E. S. Dupuy.

Chairman of Ladies' Entertainment Committee, Mrs. E. S. Dupuy. Mrs. Dupuy has appointed the following ladies to assist her: Mrs. J. E. Coleman, Mrs. C. S. Smith, Mrs. J. A. Campbell, Mrs. J. H. McCullouch, Mrs. W. W. Hume, Mrs. J. H. Hoskins.

The various committees and the society as a whole are very enthusiastic over the coming meeting, and the members of the association may rest assured that nothing is being left undone for their pleasure and comfort while in our midst.

STATE AND GENERAL NEWS

THE BARBOUR-RANDOLPH-TUCKER COUNTY NEWS

DR. J. C. IRONS, Reporter

All the physicians in this section are very busy attending influenza cases, which seem to be quite prevalent. Usually the cases are of a mild type, but occasionally accompanied with pneumonia, which is then quite serious, and in the old often fatal.

Dr. S. G. Moore is now in New York taking a post graduate course. Dr. Moore believes in keeping "up-to date."

Dr. G. D. Waite, wife and daughter left the first of this month for his home, Portsmouth, Ohio. He was assistant to Dr. Golden, in Davis Memorial Hospital for three years, and became quite popular with the patients and the public. Dr. Waite expects to devote his talent to surgery, in which he is already quite proficient.

Miss Linn, formerly matron of Davis Memorial Hospital, for the present has severed her connections

with the hospital, and proposes specializing in New York City.

Dr. Deitrick is now resident physician in The City Hospital, where he has proven quite an aid to Dr. Butt, who is kept quite busy between the City Hospital of Elkins and the Allegheny Heights Hospital at Davis, W. Va.

Dr. P. L. Gray is now enjoying (?) a severe case of influenza. When he gets out he will know how his patients feel—without asking them.

Dr. A. M. Fredlock is the nominee of the Citizens Party for Mayor of Elkins, the election being in March. The Doctor seems to like the job, as he has been elected several times, and still has a leaning that way. "It is hard to keep a good man down."

MARSHALL COUNTY NEWS

DR. R. A. ASHWORTH, Reporter

Officers for 1923: Dr. Page Dameron Barlow, President; Dr. Charles G. Morgan, Vice President; Dr. Robert A. Ashworth, Secretary; Dr. O. P. Wilson, Treasurer, and Dr. David B. Ealy, Censor.

The January meeting was well attended and many dues were paid. Dr. D. A. MacGregor, of Wheeling, gave us a well prepared, interesting and instructive paper on "The Significance of Correct Interpretation of Blood Pressure." Dr. MacGregor had a diagram which illustrated the factors concerned in blood pressure and demonstrated high and low pressure by an apparatus of his own making. He gave us such a paper as you would expect from one who is such a good student. His paper was thoroughly enjoyed by the society and was ably discussed by Dr. O. F. Covert.

The other paper of the evening was given by Dr. Harriet B. Jones, one of our own members, on "The Milk Supply of Marshall County." She advocated a state-wide law making it compulsory for all milch cows to be tested at regularly stated intervals. She also advocated full-time country health officer. Dr. Jones is a very interesting speaker and always brings an interesting message. Her earnestness in public health work impresses all who know her.

Dr. Joseph C. Peck and wife, of Moundsville, are spending the winter in Florida.

Dr. O. P. Wilson, of Moundsville, is on our sick list on account of his eyes. His trouble has been diagnosed as spasms of the ciliary muscles.

Dr. J. W. Rickey, of Moundsville, is on the sick list. The doctor is the oldest practitioner in Marshall county. We all hope for his speedy recovery.

Dr. Joseph A. Porter has announced that he will return from Maybeury, W. Va., to Littleton, where he used to reside, to practice medicine. We will welcome the doctor back to our midst.

Dr. L. V. Guthrie, superintendent Huntington State Hospital, accompanied by his wife and daughter, is spending his vacation in Florida.

Dr. C. M. Hawes of Huntington, is spending a few weeks trying to catch fish in Florida.

Dr. V. T. Churchman of Charleston was a recent visitor on professional business in Huntington.

Announcements of the marriage on Feb. 1st at Hot Springs, Ark., of our former state president, Dr. Geo. A. MacQueen, to Mrs. Nelle Eubank, have been received. At home after March 1st, 1563 Virginia street, Charleston.

Dr. Tom A. Williams, of Washington, D. C., was a recent professional visitor in Charleston.

Dr. J. E. Hubbard of Huntington has returned from New York where he was doing some special work on diseases of the skin.

Dr. and Mrs. G. C. Schoolfield of Charleston have returned from a month's stay in Florida.

Dr. Nelson R. Peck, aged 75, and who was formerly health officer of Clarksburg, died at his home in that city on February 16th.

Dr. C. M. Buckner of Huntington is spending six weeks in post graduate study in the Eye, Ear, Nose and Throat clinics of Philadelphia and New York.

Born, on January 25th, to Dr. and Mrs. C. P. Ford of Huntington, a daughter, Betty Jane.

Dr. Farley of Logan was a recent visitor in Huntington on his way home from doing post graduate study in New York.

Dr. Fred Marcum, prominent Ceredo physician, who has been ill with a complication of diseases for more than two years, has returned from a Louisville hospital where he says he entirely regained his health. Dr. Marcum has resumed his practice in Ceredo and adjacent territory. He has moved his office into new quarters in the bank building at Ceredo.

Dr. Walter N. Rowley, formerly associate obstetrician Mayo Clinic, has located in Huntington for the practice of Obstetrics and Gynecology.

McDOWELL COUNTY NEWS

J. HOWARD ANDERSON, Reporter

Dr. J. Livingston, first assistant surgeon at Welch Hospital, spent the second week in February observing the clinics at the Walter Reed Hospital in Washington, D. C. Dr. Livingston's objective was to see the methods used in this institution of handling fractures of the spine. He took with him to this institution a patient, an ex-service man, suffering with a fracture of the spine in the region of the first dorsal vertebrae, as the result of a recent automobile accident.

Dr. E. F. Sheppard, house surgeon of Welch Hospital, just returned from a short visit with relatives in Pulaski, Va.

Dr. Carroll H. Morgan, formerly a member of McDowell County Medical Society located at Kimball, W. Va., is now located at Memphis, Tenn., as a member of the firm of Drs. Morgan & Morgan. He has transferred his membership from McDowell County Medical Society to that of the Memphis and Shelby County Medical Society.

Dr. Thos. E. Peery, Bluefield, W. Va., the dean of eye and nose specialists of the N. & W. coal fields, is spending the latter part of February and the first part of March touring the West Indies and the Canal Zone.

MINGO COUNTY NEWS

RALPH J. MALOTT, Reporter

Dr. Alvah Ramsey, formerly of Roanoke, Va., is now located in

Williamson, as attending physician for the N. & W. railroad.

Dr. Charles Frederick recently came from Cincinnati to be associated with Dr. Ramsey in caring for the railroad practice in Williamson.

Dr. J. B. Millard has given up his practice at Kingsport, Tennessee, to return to Williamson, where he has become associated with Drs. G. T. Conley and R. A. Salton in their practice. Dr. Millard is a native of Mingo county and formerly practiced medicine here, so that his return elicited a most cordial reception from his many friends in this section.

OHIO COUNTY NEWS

DR. HARRY M. HALL, Reporter

The Ohio County Society held no meetings during the holiday season.

January 5th—Dr. Charles Wingerter, our local Supreme Court on Nervous Diseases, gave an able discourse on "Guide Posts in the Handling of Nervous Disorders." A certain amount of sympathy is coming to a man in Wingerter's position simply because there cannot be much discussion. Most of the men around here send the Doctor most of their severe nervous diseases, thereby acknowledging their position and his. Nevertheless he always has a good turnout and always delivers his paper in a style that in itself is a satisfaction.

January 12th—Dr. W. H. McLain, Health Commissioner, Wheeling, "Control of Venereal Diseases." Discussion: Dr. A. L. Jones, Dr. E. M. Phillips, Dr. Howard Phillips.

Dr. A. C. Abbott, Director of the School of Hygiene and Public Health, University of Pennsylvania, subject, "Carriers—Human, Insect, Rodent." Discussion: Dr. J. A. Campbell, Dr. D. A. McGregor, Dr. Andrew Wilson.

In any city there are characters that stand out. One of them in Wheeling is Dr. McLain. It is worth while we recall he reached one of the highest if not the highest position of anyone in the state in the late war. His rank may not have indicated it, but his ability and power and influence did. The doctor does not stand out for any purely clinical or therapeutic work, but as an administrator he is almost Germanlike in his methods, and whatever we say about the old German regime, they surely were thorough. It would be idle to say the Doctor is popular—for that is a damning thing to say about any health officer. The writer is glad to say there have been times when he has contemplated assassinating him. He has had Doctors fined, milkmen punished, originated innovations and then succeeded in forcing these down the throats of the members of the profession and later had them to agree that he was right.

The reporter is giving all this because it is an important thing to report. The question is, does the rank and file of the medical profession want a thorough, unrelenting health officer? Sometimes we have our doubts. —sometimes we ourselves have wondered whether we do. If we do it is going to cause some of us some mighty anxious hours. If we don't, and only want to touch the surface, that of course is a kind of H-O-K-U-M. A health officer should perhaps have tact, even diplomacy, but it is doubtful if he can ever be

popular if efficient. It is curious how the writer as well as other doctors become enraged if we are made to do things. The upshot of all this is that Dr. McLain told of the new methods of controlling "Venereal Diseases." It looks like it is the only efficient method. One doubts if there is any other. But "How about the public?" and "How about the average doctor?"—when it comes to a sign on the house for venereal diseases. The Doctor told his methods and those that were being considered, and they are quite a step forward. But it is going to take some education, and we believe it will take health officers divorced from political changes before it will be accomplished.

Dr. Abbott, who is the last word in his line gave an admirable talk and was thoroughly enjoyed. The alumni of the University gave a dinner in his honor the following evening, at which Dr. Andrew Wilson presided.

January 19th—Dr. Simpson and Dr. Butt gave the promised discussion on "Concerning the Need of a Four Year Medical School in West Virginia."

Assisting the Prosecution and the Defense were Dr. Reed with Dr. Simpson, Dr. Fulton with Dr. Butt. The proceedings were of a calm and deliberate nature, and no blows were struck. Some Doctors with ring side seats wanted their money back. Dr. Linz and Dr. Armbrecht also sided with Dr. Simpson. If the writer ever wants someone to speak in his defense he will ask Dr. Butt, because he certainly speaks with decision and finality. No vote was taken. The session did not close until after eleven o'clock, and was greatly appreciated by every one present.

February 2nd—We will have Dr. O. P. Kimball on "Goitre in School Children."

February 22nd—Dr. L. F. Barker, Baltimore, probably on "Glandular Therapy." Anyone in the city on the above dates are cordially invited to attend.

The Ohio County Society passed a resolution in regard to chiropractors.

Martha Fulton, daughter of Dr. W. S. Fulton, has recovered.

Dr. Tretheaway of Wheeling has been seriously ill. Choleo-Cystitis seems to be the ailment.

RALEIGH COUNTY NEWS

CHARLES S. SMITH, Reporter

Dr. J. H. McCullouch of Beckley spent several days recently in Charleston on matters of business.

Dr. George W. Johnson of McAlpin has returned from Virginia where he spent several days visiting friends and enjoying a bird-hunt.

Dr. and Mrs. W. W. Hume of Beckley are spending the winter in Florida.

The small child of Dr. and Mrs. K. M. Jarrell, who has been seriously ill, is reported to be greatly improved.

Dr. A. U. Tieche has returned from Charleston, where he was called recently on account of the illness of his baby.

Dr. and Mrs. Charles S. Smith of Beckley have returned from a holiday visit to their parents in Georgia.

Dr. E. H. Hedrich of Mabscot has been confined to the Beckley Hospital for several days on account of

illness, but is much better at this time.

Dr. B. W. Eakin of Tams returned recently from Elkins where he spent some time with relatives.

Mrs. J. A. Walker of Helen, wife of Dr. J. A. Walker, was a patient at the Beckley Hospital for several days recently.

Dr. Ridge of Greensboro, N. C., is now associated with Dr. M. C. Banks of Raleigh.

Dr. Wheeler, brother of Dr. B. B. Wheeler of Beckley has located in Beckley, associated with his brother.

MEDICINE AND SURGERY

SYMPTOMATOLOGY OF TUBERCULOSIS

F. M. Pollenger writing in Minnesota Medicine for October 1922, has an excellent article on The Early Diagnosis of Tuberculosis. He calls especial attention to the necessity for a good history in all suspicious cases. We quote the concluding columns of his paper:

"I wish to insist that the most important thing in the diagnosis of tuberculosis is the careful analysis of the clinical history. In my work as a clinician, I have endeavored to simplify clinical history. I found I could do this best by having some definite idea as to the cause of the various symptoms. We can find some twenty-five, thirty, or more symptoms accompanying early tuberculosis. These symptoms differ greatly, manifest themselves in widely separated tissues, and should have varied degrees of importance attached to them; but if we come to examine them carefully, it is evident that there are only three factors operating to produce them—the toxins, reflex irritation, and the disease process as it manifests itself locally in the tissues. This has caused me to offer the following classification of the common symptoms of pulmonary tuberculosis:

Etiological Classification of Common Symptoms of Pulmonary Tuberculosis

Group I.

Symptoms Due to Toxemia

Caused by harmful stimulation of (1) Nervous system in general; (2) Endocrine system in general; (3) Sympathetic nervous system; (4) Sympathicotrophic Endocrines, particularly adrenals and thyroid.

Symptoms—1, Malaise; 2, Lack of endurance; 3, Loss of strength; 4, Nerve instability; 5, Diminished digestive activity; 6, Increased metabolic rate; 7, Loss of weight; 8, Increased pulse rate; 9, Night sweats; 10, Temperature (partially).

Group II.

Symptoms Due to Reflex Cause

Hoarseness, tickling in larynx, cough, digestive disturbances, (hypermotility and hypersecretion), loss of weight, circulatory disturbances, chest and shoulder pains, spasm of muscles of shoulder girdle and diaphragm, flushing of face.

Group III.

Symptoms and Syndromes Due to the Process per se

Spitting of blood, sputum, frequent and protracted colds (tuberculous bronchitis), pleurisy (tuberculosis of the pleura).

An examination of this grouping of symptoms, together with careful application of them in the clinic, will show that those of Group I, when caused by tuberculosis, are

only present at the time that such process is clinically active. This group also may be present in any other infection; also in diseases of general nerve instability, and as a result of overwork and general conditions of exhaustion. So one must be very careful in making a diagnosis upon this group of symptoms

Symptoms of Group II result from irritation that takes place through the inflammatory processes that occur in tuberculous areas. Consequently they may be present as long as the inflammatory process remains in the lung. It is characteristic of these that they are all expressed in tissues other than the lung, but in tissues which are connected with the sensory nerves which come from the lung. A combination of some of the reflex symptoms with those of the toxic symptoms aids us in placing the inflammation in the lung itself.

Group III, which is made up of two symptoms and two syndromes, points more directly to the lung itself, but it can be readily seen that the syndromes representing tuberculous bronchitis and pleurisy, both contain symptoms belonging to Group I and Group II.

When one familiarizes himself with this classification of symptoms he will see that there are only three factors operating to produce them: (1) general nerve and endocrine stimulation; (2) reflex irritation; (3) the local process as it exists in the lung tissue. While the third group contains the most important individual symptoms, yet by combining the various symptoms from the various groups, one can soon learn to differentiate active and quiescent clinical tuberculosis. In my own experience, I consider that this classification has given me far greater satisfaction than the old method of considering symptoms as constitutional and local.

An active tuberculous process should be suspected or eliminated by a careful study of the symptoms according to this classification, in at least 80 and probably 90 per ent of cases."—W. E. V.

VACCINE THERAPY

Patients vary in their response to the antigenic stimulation supplied by bacterial vaccines; due allowance must be made for such variation when employing bacterial vaccines.

But the leading laboratories are exerting themselves to reduce the variations in the quality of bacterial vaccines to a minimum. At one time this seemed to be an easy matter, but with the application of more rigid tests it was found that bacteria could not be tagged by name; one culture might be actively antigenic, and another almost inert—both of the same organism, but from different strains.

The bacteriologist has found a more trustworthy method of standardizing vaccines than by count—though counting has not been discarded. He can now tell whether a vaccine is really antigenic or not—whether antibodies are developed in the blood in response to the injection of the vaccine.

New literature on some of the vaccines in most common use is offered by Parke, Davis & Co., whose announcement appears elsewhere in this issue.

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ACUTE INTESTINAL OBSTRUCTION

Read Before the West Virginia Medical Association, Huntington, May 1922

By C. S. HOFFMAN, M. D., F. A. C. S.
Keyser, West Virginia

In presenting this paper I shall practically confine myself to personal experiences and review a few of the many cases I have had occasion to treat. Having been actively engaged in the practice of medicine for over forty-five years, naturally, quite a few of many diseases would fall under my observation.

The treatment of acute abdominal conditions was somewhat empirical when I began practice. For instance: the teachings of the great Doctor S. D. Gross, at that time, were, that in cases of strangulated hernia, the surgeon should carefully cut down to the gut, then try to pass the finger up to the constriction and with a blunt pointed, curved bistury, (the edge of which had previously been made of saw nature by hacking it on something rough), passed along the side of the finger until within the constriction, and then, with a sawing motion, cut through the constriction. Cautioning to avoid, if possible, the Epigastric Artery which the dulled bistury would not likely injure if carefully used. A heamostatic forcep or surgical catgut were unknown at that time. Consequently, a young doctor starting in the practice of surgery then may be excused for not being as courageous as the surgeon of today, and should not be harshly criticised if he adopted measures then, that would not be considered strictly surgical now.

As I write this paper I am fully convinced that there is no condition of the abdominal cavity that requires greater skill, or more sound judgment than acute intestinal obstruction, and, after ample experience I would rather undertake almost any other abdominal operation than one for intestinal obstruc-

tion where the diagnosis has not determined the cause or location of the trouble.

When I began practice the most prevailing disease then was worms. And, whenever in doubt, the case was often diagnosed as due to worms by doctors young and old, and if the medicine prescribed failed to bring forth the worms, a statement that it had probably cut them up satisfied those interested, especially if the patient got well. But once, my diagnosis of intestinal worms being the cause of the trouble was correct. A little girl, about nine years old, was taken violently ill with all symptoms of acute intestinal obstruction. A large lump was present in the right iliac region, which I am satisfied every doctor of today would not hesitate to pronounce acute appendicitis. Appendicitis, however, at that date was unknown and I, therefore, gave the trouble the name of the then most popular disease and pronounced it as probably a case of worms. The giving of four powders of one half grain of calomel and one and a half grains of santonine each, followed by a liberal amount of purgatives caused the expulsion, in three days time, of 137 large lumbricoid worms, besides a moulded, intertangled solid mass of these worms four inches long and as large around as the small bowel would possibly permit. The recovery was immediate. Several years later I saw in the Pathological Collection of the Jefferson Hospital a mass of worms of similar nature preserved in alcohol, but not nearly as large as my specimen. I want to say here that worms in children are not as often seen now as they were years ago.

Later, when abdominal surgery became more popular, our literature teemed with articles on Ileus following abdominal operations, until almost every surgeon lived in a condition of suspense until a free evacuation of the bowels occurred.

Soon after I opened my hospital, Mrs.——— was sent to me for abdominal operation. As conditions, in my judgment, required it, I performed a clean operation, removing the appendix and cystic ovaries. On the third day we commenced giving medicines to move the bowels; persistent vomiting developed which we could not relieve by any treatment prsecribed at that time, and the patient died. A post mortem showed that, at least, two feet of the small intestine was entirely empty and flacid. The gut was open, but like the finger of a wet rubber glove, nothing could be forced through it. Above this the bowel was distended, below it was empty but normal in appearance. My diagnosis was "Paralytic Ileus."

The present treatment of repeatedly washing out of the stomach with elevating the head of the bed and rectal feeding would probably have saved this patent's life. Then the treatment was to give Eserin and Strychnine and physic.

Some time after this I saw in consultation a patient, Mrs. D., 51 years of age, who had had diarrhœa for several days previously. The diarrhœa had suddenly stopped and then vomiting set in which became persistent. I advised the removal of the patient to the hospital for better treatment and operation if necessary. The family were opposed to operation if any cure were possible without. After her remov-

al to the hospital, from some cause, the vomiting to some extent let up, but the patient died. A post mortem was obtained which revealed at least three feet of the small bowel contracted down as small and hard as a lead pencil. Nothing could pass through it. This, in my opinion, was a case of Hyper-dynamic Ileus. Possibly, a Jeju-nostomy might have spared this woman's life.

I was present at the post mortem on a man who died with similar symptoms, where the condition of the bowel was the same as the case just related.

Case 4—A woman, thirty-five years old, without any previous history or symptoms of abdominal trouble, was taken suddenly ill with abdominal pain, located near the umbilicus, followed by vomiting which became persistent and stercoraceous. An abdominal operation was urgently insisted upon, but not until she was practically past hope, could her consent and that of the family's be obtained. On opening the abdomen a small artificial band, about as thick as a twine string, from some cause, extended from one part of the small bowel to another and under this band was a loop, or knuckle, of bowel which caused the obstruction. This patient survived the operation a few hours. A simple operation, at an earlier date, could have cured her.

Case 5 was a woman who had undergone an abdominal operation thirteen years previously by Dr. Howard A. Kelly. Down deep in the pelvis a loop of small bowel had dropped and become attached at a very small part. For thirteen years this woman had been in the best of health following this operation. When from some cause intestinal obstruction suddenly developed. After several days of home treatment she was sent to me. As her condition was so bad I operated at once and found that from some cause the bowel had made a twist upon itself at this point of adhesion, causing complete obstruction. An earlier operation, before toxic infection took place, I believe could have saved her life.

An early operation in a clean case, to clear up an urgent diagnosis, cannot do much harm.

Case 6—C. L., aged fifty-three, a farmer who had always enjoyed fairly good health previous to three months ago, when he had a severe attack of pain in the abdomen, with soreness, much vomiting and difficulty in getting his bowels to move. His wife at that time was his principal physician. He now was sent to me with another attack of the same nature but much more severe. The pains in the abdomen were more intense, the abdomen more swollen, the vomiting more severe and of a stercoraceous nature. There were marked indications of peritonitis. The purgatives given had failed to produce any results. There was pronounced toxemia. My diagnosis was appendicitis in some way obstructing the bowel. Owing to the toxemia, peritonitis and abdominal distension I refused to operate at once. This was a model patient assisting us in every way he could, uncomplainingly. The head of his bed was elevated, his stomach lavaged at frequent intervals, all food by stomach prohibited, proctoclysis by the drop method used consisting

of a pint of salt solution to which was added some milk or liquid beef administered every three or four hours. Our experience is that the rectum rebels to the continuous Murphy drop. Codine Sulp. was given for pain as required. As we have found that Codine is almost as effectual for relieving pain as Morphine, and does not constipate the bowels or cause nausea. Eight days passed before the bowels moved. In about two weeks his condition became normal. He was now taking thin gruels and had improved sufficiently to justify an operation. When the abdomen was opened the appendix was found twisted around the bowel causing the bowel to double on itself, with an opening through the bowel no larger than a lead pencil. An operation when I first saw him, poisoned with the intestinal toxemia and abdominal distension, with local peritonitis, would in my opinion have hastened his death.

Case 7—Mrs. S., aged forty, was sent to us with diagnosis of acute intestinal obstruction. For the last three months she had been suffering with constipation, which physics were rather slow in relieving, but not until five days previously did she have any positive trouble. Her health was apparently good. She was fairly well nourished and had not lost flesh. Five days previous to my seeing her she was taken with pains of a colicy nature in the lower abdomen. Physics had given her no relief, or moved her bowels but instead she had developed vomiting which was now stercoraceous. The examination indicated that the trouble was in the lower abdomen but could not be located at any one point owing to the distension. The rectum was empty. As there was much abdominal tympany, lavage was resorted to, with elevation of the head of the bed, in hopes that some good could be accomplished. Our experience has been that a badly distended abdomen is a dangerous proposition for operation. After trying this plan of treatment from one evening until the second morning without any improvement, (the patient gradually growing worse) I decided to open the abdomen, and attach to the abdominal wall the first piece of distended bowel presenting and open it. In doing this the first piece I caught and pulled out was surrounded by a mass as large as an average orange, which proved to be cancerous and through which only a small tortuous channel of the bowel passed. As quickly as I could I severed this mass by cutting through the gut above and below, closing the end of the lower gut and dropping it back into the abdomen, and fastening the upper gut to the abdominal incision, after first placing into the bowel a soft rubber tube. The patient was much shocked and survived the operation only a few hours. This case was of much interest owing to its pathology and the acuteness of its development.

Case 8 was that of an infant five days old, that Dr. Maxwell, of our town, brought to the hospital for observation and diagnosis. He had diagnosed intestinal obstruction but was unable to locate it. As the upper abdomen was so distended we decided that the obstruction was possibly somewhere in the lower ilium. As the child was weak and

emaciated no operation was deemed advisable. Three days after this the baby died. A post mortem was obtained at which it was found that about midway of the small intestine there was a complete obliteration of the gut for at least six inches. Above this point the bowel and stomach were enormously distended with gas, below this point the gut was empty but natural in appearance. The obliterated bowel was no larger than a twine string and there was no opening through it whatever.

On March 16th, just past, Mrs. C., aged twenty-two, worker in woolen mill, was admitted to the hospital. Her history is as follows: Three weeks previously, she was taken with cramps and soreness in the abdomen, which her physician pronounced appendicitis and from which she recovered, without operation, in about one week. She then returned to work, but during the week following, when about half through with her meal, she would be taken with severe cramping pains in her abdomen. She got better of this and for one week thought she was well, when after eating a hearty dinner on Wednesday, she was taken with a violent pain in her abdomen, followed by vomiting, requiring morphine for pain. If she did not take anything into her stomach she had but little pain. A drink of water, however, would be followed by violent cramps and vomiting. This condition continued until she was operated upon. There was very little soreness, or tenderness, of the abdomen except just above the umbilicus over right rectus muscle. Three physicians had pronounced her trouble Gall Stones. My diagnosis was obstruction of the bowel. She entered the hospital late Thursday night. Friday she was fairly comfortable except after taking any liquid she would have have great pain until she vomited. Early Saturday morning I opened the abdomen by a high incision. On inserting my hand I found a lump, which upon withdrawing it from the abdomen, proved to be an inflamed, adherent, twisted mass of bowel, which was easily separated. It was estimated that, at least, thirteen to fifteen inches of small bowel were involved in this lump. Careful examination could assign no cause for this condition. The operation consisted of separating this mass of bowel, covering the raw surfaces with peritoneum, dropping them back into the abdomen and closing the abdominal wound. The patient left the hospital on the fourteenth day, cured.

Acute Obstruction from Intussusception—My first case occurred in my early practice when, as I have stated, operations were not as frequently or successfully performed as now, and when every physician tried to avoid serious operations if possible. This was an infant about eight months old. It was taken suddenly ill twenty-four hours previously, with unmistakable evidences of intestinal intussusception. As the parents had given the infant all the physic necessary without getting any results except to aggravate the vomiting, and increase the uncomfortableness of the child, I determined to try inflating the bowels with air, and see if they could not be unfolded by this method. Consequently, I got my large aspirator and as heavy a male cath-

eter as possible and, after chloroforming the child, the child's mother and I started to work. But with this apparatus it was impossible to confine the air in the bowel. I then got a good sized cake of soap, cut it in the shape of a cone, drilled a hole through it to fit my catheter tightly, and made another trial. By pushing the cone of soap with the catheter through it tightly against the anus, I managed to hold the air. I don't know how much air pressure I developed but I am satisfied it was more than I would be willing to use now. Suddenly, there was an audible sound in the baby's abdomen and it instantly filled with air. At first, I was afraid I had ruptured the bowel but upon removing my apparatus there was quite a discharge of bloody mucus with gas. Both the child and I were relieved. The next day the child was well.

Case 2 was that of a very delicate female infant, about eleven months old, with all the positive symptoms of intussusception. Dr. Maxwell confirmed by diagnosis. I hesitated then to operate; I would not hesitate to do so now. There was complete stoppage of the bowel with a lump in the right lateral abdominal region, which could be clearly outlined. We treated this child for five days without any change in its condition. We had decided to operate the next morning if it was no better, but to our great relief, when that time arrived the lump was perceptibly smaller and gradually disappeared. The child was soon well.

Case 3 was a male child, eight months old, upon whom I operated for intussusception. A case of Dr. Maxwell's. This child was apparently doing very nicely until pneumonia developed and it died.

Case 4 was a baby boy, four months old, from Henry, W. Va., who was taken with positive symptoms of intussusception at one o'clock, A. M. The child was in my hospital that night. The next morning I opened the abdomen. The invagination was at the Ileo-Coecal valve. About three inches of the small intestine was invaginated into the large intestine. The appendix was also two thirds invaginated and the one third that was not pulled in with the invagination was of a dark blue color from strangulation, and would have soon broken down. The invagination was reduced, appendix removed, abdomen closed and the child made an uneventful recovery.

Case 5 was of intussusception in a female child, sixteen months old, the father of which is a physician. This child was taken with colic, bloody stools, some vomiting. Physics moved the bowels; bowels became very loose and the child was treated for Entro-Colitis, by father, for two weeks. The child was allowed to take freely of milk, toast, oatmeal, ice-cream, etc. At the end of at least two weeks Dr. Maxwell was called in to see the patient. He deferred his opinion and requested that I should be called in, which I was that evening. The child's face was pinched, history and symptoms about as I have related. Physical examination of abdomen revealed a lump in left side extending from the ribs to the pubic bone. From all the history, with lump in abdomen, it evidently was extensive invagination of the colon. As it was

so late in the disease and the bowels were allowing the passage of food. The probability, to my mind, was that adhesions of the bowel to one another had taken place and that the safest plan was to wait on nature for the inside piece to slough off, giving, in my opinion, the best chances for recovery. I therefore, advised against operation. The father was advised of the nature of the trouble, but could not, on account of the bowels moving, realize its seriousness. After several days he was again advised of its condition and now took the child to Baltimore, where it was operated upon and died soon after the operation. The operation proved the correctness of our diagnosis. I feel confident its chances for recovery were far greater at this late period of its sickness by treating it expectantly than by surgical interference.

Case 6—Some time ago, Dr. Maxwell brought a little boy, twenty-seven months old, to the hospital with this history: Three days previously he had had a diarrhœa. Then he was taken with pain or cramps in the abdomen. Then with a desire for evacuation of the bowels, with straining and the passage of only a small quantity of a wine colored jelly-like mucus. (I would note here that the passage of this kind of wine colored mucus and nothing else is an almost absolute indication o f intussusception.) There was a lump in the left abdomen. The diagnosis was easily made. The operation was simple. From five to seven inches of the descending colon was invaginated and was easily reduced. The child made a good recovery with no bad symptoms. The local indications were such that had the operation been postponed for twenty-four or forty-eight hours, there would have been gangrene and sloughing of the bowel.

I could continue enumerating quite a number of other cases of the absolute stoppage of the bowels that have come under my observation and treatment; some successfully treated, others not, but I have selected only these few to show some of the diverse conditions.

In conclusion I would say that the symptoms of Intestinal Strangulation, or Ileus, are easy to interpret, the exact diagnosis difficult, and the plan of treatment to pursue requires the greatest judgment. At one time it is that of procrastination; at another, active interference. As a rule early operation gives the best results. When the bowels are much inflated, operation is a serious consideration, and if accompanied with marked toxemia, operation is rarely successful. Often a better treatment under this condition would be an expectant one, with elevation of the upper body, the repeated washing out of the stomach, sand bags to the abdomen and rectal feeding; with the giving of codine to relieve pain. If peritonitis is present operation adds to the gravity of the case. In cases of ileus, or strangulation, where immediate operation is required and the location of the trouble not defined, the McKinnon operation, in my opinion, offers the best results, unless upon opening the abdomen the strangulation is easily apparent and easily remedied; as searching through the bowels for the constriction adds to the gravity of the patient's condi-

tion. If a toxic condition exists, the operation should be done with local anesthetics, if possible, as the giving of ether increases the toxemia.

The toxemia, as we all know, is due to the retention and absorption into the system of the greenish or greenish yellow fluid which the patient vomits at intervals, and which accumulates in the stomach rapidly, often in large quantities, and should be gotten rid of at frequent intervals by washing out the stomach. So poisonous is this secretion or excretion that dogs forcibly fed upon it soon manifest a condition of toxemia and soon die.

Dr. J. A. Guthrie, Huntington:

These are very interesting papers, and this is an extremely important subject.

If you give an anesthetic you increase the risk. Why open the abdomen? An open catheter in the intestine does not produce any shock, and can be done in a few minutes. These patients are not fit for anesthesia. You can put in a tube in a few minutes, and you will be through.

What causes these obstructions? In operative cases they are due usually to prolonged operative measures. Reduce the operation down to twenty-five or twenty minutes, and do what you have to do, and you will have no obstructions.

* * *

Dr. Hugh G. Nicholson, Charleston:

This subject of ileus, or intestinal obstruction, has been of great interest to me since my graduation in 1897, at which time I wrote a thesis on this subject, basing my conclusions upon that masterly essay of Cleves written a short time before. I wish most heartily to commend Dr. Fulton upon his work in these cases. By all means do an enterostomy.

The chemistry of food is one of most interesting subjects in medicine, especially the chemistry of protein foods. When these foods stay in the intestinal tract over twenty-four hours, under the process of bacterial fermentation these proteids split up into ptomaines, which are far more toxic than the most violent alkaloid poisons. This causes the toxemia or the poisoning.

But why should we have obstruction, or ileus? As Dr. Fulton says, do not manipulate the guts. Use as few sponges as possible, and do not use them hot. Be careful and do not let the guts touch the iodine. Do not let them touch the belly walls; do not pull on them; and keep out the hot towels, for you do not need them.

* * *

Dr. Wise.

Speaking from the general practitioner's standpoint, I think that the very moment we think we have a case of this kind we should get the surgeon there as soon as possible, thus giving the surgeon and the patient the greatest possible chance. Do not wait until you can make a complete diagnosis, but get the surgeon.

* * *

Dr. Frank LeMoyne Hupp, Wheeling:

Both of these papers have been literary treats, and they are most competent in every respect.

One point brought out by Dr. Fulton's paper I want to emphasize, that is, the drainage opening must tap the fluid below. Jejunostomy can also be performed as a preventive measure when postoperative obstruction and peritonitis are anticipated. When we open up a pus abdomen, a case with the general symptoms of peritonitis, we should not satisfy ourselves with the ordinary drainage, which does not reach into the remote parts of the abdomen, but we should go right in, as Dr. Fulton says, and drain the opening at the top of the abdomen where the fluid is. McBurney divides the intestinal tract into three tracts: The lower, collapsed; second, distended with gas; third, or upper, with this foul toxic substance. Deavor reported 276 cases operated upon in the last ten years. Of this number 156 were strangulated hernia; 120 internal strangulation. He made much of the average time from the onset of the strangulation to the time of the operation. In the cases that recovered it was two and one-half days; and in the cases that died 97 hours, or four days.

They are not diagnosed soon enough. We are to look, for a reduction of this mortality, to the men now coming out from the hospitals. They are better taught than we were. Munyon says that few surgeons enjoy the privilege of operating on these cases early, and few surgeons have a mortality of less than 50 per cent.

* * *

Dr. McMillan:

The one point that is, I think, of the greatest importance is early recognition and early interference, whether by early high drainage or by other methods.

We are certainly indebted to Stone for the way in which he brought out the point of hypertoxemia of the patient.

I want to endorse the statement of Dr. Fulton as to the wonderful resistance and wonderful comeback qualities of the patient in these apparently hopeless cases. Sometimes they surprsie us very much by their splendid recuperative qualities.

Obstruction does not always follow careless surgical technique. Of course, most of these cases come from drainage cases and cases of peritonitis. I have in mind a case of obstruction following the most careful technique. That case, a woman, developed an obstruction from what I term the mesentery. She made a good recovery.

In the work of trying to save these cases that come to us late, I think one of the most important things is that of getting the upper and lower intestinal passages thoroughly cleansed, and not attempting operation until we have profound anesthesia, in those we anesthetize, with slow, careful, profound anesthesia. We certainly do get wonderful results with total anesthesia and with drainage of the intestine.

* * *

Dr. Romine:

These are two most excellent papers. We know that all cases of acute obstruction of the intestines and intestinal canal can be cured by early surgery. The diagnosis is the thing that enables us to cure the patient. Any case of acute in-

testinal obstruction may be cured by surgery if it is done early. If we allow a paralytic ileus to come on after mechanical obstruction has been present for twenty-four hours, we can have very much less hope of curing that patient. If we can get the patients early, any acute obstruction can be cured by surgery. There is no excuse for allowing an obstruction to go on for more than twelve hours.

* * *

Dr. C. A. Ray, Charleston:

I have listened with a great deal of interest to these papers and the discussions, and finally became lost in the maze of what you do and what you do not do after you have made the diagnosis. I am struck with the remarks of Dr. Guthrie in the handling of these patients after making the diagnosis.

In the practical diagnosis, this is one of the cases in which your sense of sight is very important. There is no other condition in which it comes in so handy to look at your patient and almost, by the condition, make a diagnosis of intestinal obstruction. I have had quite a little experience among a class of people who are subject to this condition. I have seen quite a number of cases of intestinal obstruction, and in no other condition do you see the amount of shock, and see no reason for the patient being so sick, as in intestinal obstruction. You can almost walk into the room and make the diagnosis. It comes from observation, and has become almost intuition with me. As for the surgery, you can do a great deal more for the patient by leaving off manipulation in the surgical procedure.

* * *

Dr. W. H. St. Clair, Bluefield:

About the time we feel we have really learned something and have a dictum established in surgery, some one comes along and upsets it. What I have reference to in these intestinal obstructions are those with peritonitis. This seems to have been thrashed out and generally established, that in the cases of peritonitis the less we do, the better. Get in, remove the appendix, stick in a drain, and get out. That question has been settled. About two years ago Dr. Willis, of Richmond, conducted some animal experiments and then began trying it out in the human being, washing out these cases. In cases of diffuse peritonitis, he does not hesitate to flush those cases with saline, using the suction apparatus to suck out the saline, until the peritoneal cavity is comparatively clean. I have been practicing that for the last year and a half, and it certainly does no harm. They probably have a pocket up toward the liver, up toward the spleen, down toward the pelvis. Do not hesitate to explore for those pockets and break them up and pour in saline. You will be surprised to see how well these patients will do, and how many of them will be saved.

* * *

Dr. Hoffman, closing the discussion:

I have only this to say. My experience in taking up the first bowel I come to and opening it has been

bad, very bad. A high jejunostomy is the proper thing to do.

Not every case of apparent strangulation of the bowel needs to be operated upon. I could report two cases that have gotten well by the elevation of the head of the bed and other measures. It is not necessary to operate upon all.

* * *

Dr. Fulton, closing the discussion:

I think that we all agree pretty well in our findings in this matter, but the last word has not been said. We have absolutely no right to deceive ourselves, and we have no right to say that we have not made mistakes, and we haven't any right to say that we always recognize intestinal obstruction. If we do, we admit that we are moral cowards. I know some of the best men in West Virginia who have sat by the bedside in post-operative obstruction without the moral courage to reopen the abdomen. I do not think a man can be placed in a more embarrassing position. Let us get from these papers the courage to go ahead and do our work and go ahead and operate. Let us get the point, to be strong enough not to delay, but to operate upon these cases at once. I had the misfortune of having seven post-operative intestinal obstructions in ten days, but I do not believe it was my fault. They were advanced cases, adhesive peritonitis, most of them. I had one hundred per cent recoveries, but it was by relieving the toxemia. Have the courage of your convictions and do your work.

WEST VIRGINIA'S PROGRESS WITH THE MODEL VITAL STATISTIC LAW

Read Before the West Virginia Medical Association, Huntington, May 1922

By CARL F. RAVER, M. D.
Charleston, W. Va.

In presenting this report for your consideration, I realize that people, as a rule, are bored by figures, therefore I shall try to be brief.

Up until July 21st, 1921, West Virginia had no adequate law looking toward the collection of births and death reports and little effort was put forth by either County or State officials in securing such reports.

For several years the State Department of Health, realizing the great need of these statistics, tried to secure the passage of a model vital statistics law and finally succeeded in doing so, in 1921. One of the objections to the passage of the proposed law was, that it would not secure results. Those opposed to the law claimed that registration under the old law was far better than could be hoped for under any new law. This was contrary to the experience of some forty odd states in the Union, which had adopted the model law, with some slight variations, and were using it with good success, and the object of this paper is to show you gentlemen the progress we have made in the collection of birth and death reports, in our own State, with only six months operation of the new law.

I have distributed, for your convenience, a report printed in two colors. On page one you will find the birth report and on page two, the death report.

WEST VIRGINIA STATE DEPARTMENT OF HEALTH

DIVISION OF VITAL STATISTICS

Birth Rate (Exclusive of Stillbirths) Per 1000 Population as Reported for Six Months Period During 1921

RANK	COUNTY	Number Births Reported 1st 6 Months Working Under Old Law	Number Births Reported 2d 6 Months Working Under New Law	Birth Rate Per 1000 Population For Second Six Months
1.	RALEIGH	655	788	37.0
2.	BOONE	17	260	33.9
3.	LOGAN	760	676	32.9
4.	HANCOCK	248	328	32.8
5.	MERCER	700	814	32.8
6.	WEBSTER	214	188	32.5
7.	McDOWELL	1029	1108	32.3
7.	MONONGALIA	515	533	31.7
9.	BARBOUR	200	282	31.3
10.	MORGAN	116	131	31.3
11.	MARION	652	813	29.7
12.	BROOKS	171	243	29.4
13.	KANAWHA	1308	1745	29.1
14.	MINERAL	244	287	28.9
15.	PLEASANTS	37	106	28.7
16.	FAYETTE	783	858	28.4
17.	TUCKER	180	238	28.3
18.	PRESTON	343	392	28.0
19.	NICHOLAS	234	290	27.9
20.	RANDOLPH	431	372	27.7
21.	ROANE	177	279	27.7
22.	CLAY	89	157	27.2
23.	HAMPSHIRE	80	157	26.8
24.	HARRISON	667	978	26.1
25.	GREENBRIER	251	334	25.4
26.	WETZEL	217	288	24.9
27.	HARDY	7	118	24.5
28.	MONROE	76	161	24.5
29.	RITCHIE	158	203	24.5
30.	TAYLOR	6	229	24.4
31.	POCAHONTAS	0	182	24.2
32.	MASON	200	256	23.8
33.	PENDLETON	113	111	23.0
34.	LINCOLN	197	219	22.6
35.	UPSHUR	141	195	21.8
36.	PUTNAM	158	189	21.5
37.	WYOMING	7	163	21.4
38.	CABELL	518	695	21.1
39.	BRAXTON	96	249	20.7
40.	MARSHALL	6	348	20.6
41.	WOOD	156	434	20.5
42.	TYLER	69	145	20.4
43	OHIO	182	637	20.2
44.	LEWIS	179	206	20.1
45.	MINGO	0	265	20.1
46.	CALHOUN	51	100	19.4
47.	JACKSON	21	171	18.3
48.	WAYNE	13	228	17.5
49.	JEFFERSON	143	136	17.2
50.	BERKELEY	34	204	16.6
51.	WIRT	62	59	15.6
52.	GRANT	82	69	15.3
53.	DODDRIDGE	3	92	15.3
54.	SUMMERS	33	137	14.3
55.	GILMER	111	61	11.4
		13131	18907	
		Gain 5776		

Death Rate (Exclusive of Stillbirths) Per 1000 Population as Reported for Six Months Period During 1921

RANK	COUNTY	Number Deaths Reported 1st 6 Months Working Under Old Law	Number Deaths Reported 2d 6 Months Working Under New Law	Death Rate Per 1000 Population For Second Six Months
1.	MINERAL	66	147	14.81
2.	CABELL	82	441	13.41
3.	LEWIS	110	136	13.29
4.	LOGAN	120	268	13.07
5.	OHIO	44	406	12.91
6.	MORGAN	23	49	11.72
7.	ROANE	76	118	11.72
8.	MARION	36	312	11.43
9.	MONONGALIA	103	189	11.24
10.	PRESTON	78	153	10.93
11.	MARSHALL	5	184	10.92
12.	TAYLOR	2	101	10.77
13.	KANAWHA	406	644	10.76
14.	BERKELEY	5	131	10.67
15.	JEFFERSON	25	84	10.67
16.	MERCER	80	257	10.37
17.	UPSHUR	88	92	10.30
18.	McDOWELL	187	352	10.26
19.	GREENBRIER	62	134	10.21
20.	WOOD	41	215	10.16
21.	POCAHONTAS	0	76	10.13
22.	RALEIGH	96	215	10.12
23.	HARRISON	255	376	9.95
24.	TYLER	40	70	9.86
25.	WETZEL	71	113	9.79
26.	FAYETTE	91	295	9.77
27.	HANCOCK	36	97	9.71
28.	WIRT	16	36	9.55
29.	BARBOUR	18	86	9.54
30.	PLEASANTS	1	35	9.48
31.	BROOKE	33	77	9.31
32.	HAMPSHIRE	11	53	9.04
33.	MASON	48	97	9.04
34.	RANDOLPH	4	121	9.02
35.	DODDRIDGE	2	53	8.85
36.	RITCHIE	48	71	8.60
37.	TUCKER	94	71	8.45
38.	BOONE	3	63	8.22
39.	SUMMERS	24	77	8.06
40.	MONROE	15	52	7.91
41.	PENDLETON	31	37	7.66
42.	WEBSTER	17	42	7.26
43.	CLAY	2	38	6.61
44.	BRAXTON	25	78	6.50
45.	CALHOUN	5	33	6.42
46.	JACKSON	8	56	6.00
47.	MINGO	0	78	5.91
48.	PUTNAM	35	49	5.59
49.	GRANT	15	25	5.55
50.	WYOMING	2	40	5.27
51.	NICHOLAS	20	54	5.21
52.	HARDY	7	24	4.99
53.	WAYNE	0	62	4.76
54.	LINCOLN	26	43	4.43
55.	GILMER	19	23	4.31
		2757	7229	
		Gain 4472		

The first column of figures, printed at the extreme left, in black, shows the rank of the various counties. The second column gives the number of birth reports for the first six months of 1921, or the number of reports received, while operating under the old law.

The third column, printed in red for the purpose of contrast, shows the number of births reported in the second six months of 1921, during which time we were operating under the new law. (All printed in black in Journal.—Ed.)

The fourth column is the rate column. Raleigh county, having the highest birth rate, was placed first, with Boone second, Logan third and so on.

By comparing the black and red columns, you will see that there is not much increase in certain counties in the number of reports received during the second six months. Those particular counties were doing fairly well under the old law, but there are many counties which do show a striking improvement.

Take, for example, Boone, jumping from 17 to 260; Hardy, from 7 to 118; Taylor, from 6 to 229; Pocahontas, from 0 to 182; Wyoming, from 7 to 163; Marshall, from 6 to 348; Ohio, from 182 to 637; Mingo, from 0 to 265, and Doddridge, from 3 to 92. You see, there has been wonderful improvement in certain localities.

During the second six months of 1921, we received 5776 more birth reports than we did the first six months of that year. This is an improvement of almost 1,000 reports per month.

Now, look at the rate column. When you consider that 25 is the average number of births per thousand people, in the birth registration area, at once you see there are 26 counties in West Virginia which could qualify as ready to be admitted to this area.

On November 23, 1921, Congress passed a bill, known as the Sheppard-Towner Bill, which made available, in the several states of the Union, certain funds which are to be expended in the promotion of the welfare and hygiene of maternity and infancy. I understand that West Virginia's share of this money is something like ten thousand dollars ($10,000.00), but we are not likely to get a single penny of this money to use for the benefit of our babies and their mothers, simply because we have no adequate birth records, recognized by the United States Government. In other words, we are not to participate in the use of this Federal aid because we are not in the Registratian Area.

This, indeed, is sad news.

There is only one way out, and that is to be admitted to the Registration Area. We can accomplish this, if every doctor gets behind the movement and reports his births.

Here is a grand chance to win a prize! Ten thousand dollars ($10,000.00) is ours if we can qualify, and all that is needed is, for each physician in the state to promptly, once a month, send in his birth reports. Is this asking too much? You owe it as a duty to your clients and you owe it as a duty to yourself, for the State law makes it compulsory on physicians to report

these cases, and you are not a law-abiding citizen if you fail to do so.

In my travels, I have met a few physicians who object to making these birth reports, because they are no longer paid the 25c fee for so doing. They claim the state can not compel them to perform a service without just recompensation.

My answer to these objects is as follows:

In granting a physician a state license to practice medicine, the state guarantees to the physician certain special rights and privileges and, in return, the state can properly ask that the physician make certain reports which are for the public welfare.

Now, let us consider the death report. It is arranged on the second sheet similar to the birth report. In one column is shown the number of deaths reported the first six months and, in red, is shown the number of deaths reported under the new law.

Again we are able to see wonderful improvement. In fact, more relative improvement than was shown in the birth table. Some of the counties that stand out prominently here are, Cabell, Ohio, Marion, Marshall, Taylor, Berkeley, Mercer, Wood, Pocahontas, Barbour, Pleasants, Hampshire, Randloph, Doddridge, Boone, Clay, Calhoun, Jackson, Mingo, Wyoming, Wayne.

Our gain in deaths reported the second half of the year was 4472, or an average of better than 745 each month.

In closing, I beg of you take this report home. Study it carefully. Resolve to do all in your power to aid in getting in these reports. Do not allow West Virginia to be one of the backward states in the important work of birth and death registration. All we need is a little conscientious effort on the part of every one and the thing is done. We have a very good set of registrars. They are trying to do their duty, but when they write you for your birth reports and you fail to respond, you cause them to lose faith in the medical profession as a group of high-minded, law-abiding, citizens. Don't fall back on that old, timeworn, excuse that because the child is not named, that is why you don't report. Send in the report without the name. We want the report. The Division of Vital Statistics will get the name later, if we have the first report to work with.

POTTER METHOD OF VERSION

Read before the Ohio County Medical Society, November 24th, 1922, in connection with the presentation of the Wertheim Obstetrical Film.

By D. A. MacGREGOR, M. D.
Wheeling, W. Va.

The practice of internal podalic version dates back more than 1500 years. Numerous methods of turning and delivering a child by the feet are to be found in the writings of many ancient authorities. For more than 1500 years the practice of version has been considered an extremely dangerous procedure, and one to which the accoucheur might resort only in cases of extreme emergency. With the development of aseptic practices in connection with obstetrics, internal manipulations such as podalic versions have become less dangerous

to the mother in the hands of skillful operators. The modern obstetrician who has taken every precaution to insure absolute asepsis for himself and the field in which he expects to operate, does not hesitate to perform a version on account of the possibility of infection of the mother at his hands. The frequency with which the obstetrician undertakes version is determined, in the first place, by his own familiarity with the manœuvre and his dexterity in performing it, and in the second place by his ideas in regard to the proper indications for that manner of interference.

In the past six years, Dr. Irving W. Potter of Buffalo, N. Y., has had the most unique and comprehensive experience in performing internal podalic versions, and as you all know has given to the Medical Profession a new conception of the best method of performing version, and the proper indications for its use.

Dr. Potter delivers more than 1000 women a year in the various hospitals of Buffalo. Approximately ninety percent of the deliveries are accomplished by version. These figures indicate that Dr. Potter practices and preaches. He believes that version is the method of choice for delivery and that other methods of procedure are only indicated in certain unusual conditions. For instance, a Caesarian section is indicated for a central placenta praevia; or in a case of eclampsia with a rigid undilatable cervix.

Dr. Potter maintains that version is better for both mother and the baby. He maintains that the mother is saved the shock of a long and painful second stage of labor, and that her convalescence is therefore, shortened. He claims that by his method of version there is less injury to the perineum and that by the more rapid and skillful delivery the mothers are saved from having so many cases of prolapsed bladders and bulging rectoceles. He argues that women will be more willing to bear children if they can be assured of relief from pain during the second stage of labor. In regard to the child, he points out the fact that delivery by version prevents the numerous forceps injuries that are to be found in more conservative practice. Rapid and skillful delivery of the baby's head eliminates the long continued cerebral pressure which is frequently the cause of early death or subsequent enfeeblement of the child.

Dr. Potter also maintains that his mortality statistics for both the mothers and the babies are just as favorable as the statistics to be obtained from any clinic conducted along more conservative lines. I am well aware that these conclusions and statistics given by Dr. Potter have been challenged on numerous occasions and that his method has not met with the unqualified endorsement of the leading obstetricians of this country. It is not my purpose to argue for or against his principles or to champion his method as one which should be universally adopted, but I do wish to review before you tonight the important points of Dr. Potter's technique. He has evolved the most successful method of delivery by version that has ever been described by any obstetrician. We all know that version is the method of choice in a certain percentage of cases, and

knowing that, it behooves us to learn the methods of the man who has done more successful versions in the last six years than any other man has attempted in a life time.

In Dr. Potter's clinic, the preliminary preparation of the patient is much the same as is practiced elsewhere. Before the patient is delivered she is shaved and scrubbed and catheterized. An enema is not given immediately before delivery because the field is frequently contaminated by liquid feces if this procedure is carried out. If possible the rectum should be emptied by enema or cathartic quite some time before delivery is accomplished.

Delivery is not attempted until the cervix is completely dilated or until it is very soft and easily dilatable. Incomplete manual dilatation of the cervix, in which it has been rudely stretched to the sides of the pelvis, but has not been thinned out or obliaterated, is frequently the cause of failure in delivery by versions because the cervix may contract around the neck at the crucial moment and obstruct the delivery of the aftercoming head. After the cervix is completely dilated, in other words, at the end of the first stage of labor, the patient is placed on the obstetric table for delivery. In the home an ordinary kitchen table is perfectly satisfactory. The anaesthetist has free access to the head of the patient at one end of the table, and her buttocks rest upon the other end. The position adopted is the modified Walcher position. If two assistants are available for the purpose they hold the legs in the proper position. If they are not available the same position may be obtaind by having the feet rest upon two ordinary chairs placed at the right and left sides of the table. The Walcher position is adopted because, as is well known, the true conjugate of the pelvis is increased approximately one centimeter by having the patient in this position instead of the usual lithomy position. It also relaxes the perineal soft parts very considerably. This is a good point which we do not always remember in the ordinary conduct of our cases. If the Walcher position is advantageous for delivery by version it is also the position we should adopt for most of the other methods of delivery.

Sterilization of the vagina, according to Dr. Potter's technique is accomplished by the liberal use of green soap. It has proven to be a most satisfactory antiseptic for this purpose and in addition it acts as an ideal lubricant. It is quickly washed away by the fluids that come down from above and does not adhere to the vaginal walls as vaseline and other lubricants do.

Dr. Potter's preparation for the delivery is the same as that practiced by other obstetricians with the exception that he makes use of long rubber gloves which reach to the elbow. You will readily see the advantage of that sort of a glove in performing versions. The anaesthetic which he prefers is chloroform. He reports no unfavorable accidents in the course of its use. We are ordinarily very wary in the use of chloroform but for some unknown reason we are all inclined to think that chloroform is a relatively safe anaesthetic for obstetrical delivery. It is very satisfactory in version, first, because it gives a

complete relaxation of the perineal musculature, second because of its rapid action upon the mother, and in the third place because it does not seem to have a very depressing effect upon the respiration of the child immediately after delivery.

The first, and one of the most important, preliminaries in the operation of version is the dilatation of the vagina and the perineal floor. This is accomplished by what is called an "ironing out" of the vagina. One finger is inserted to the cervix and gradually withdrawn with constant firm pressure stretching the vagina and pelvic floor downward toward the rectum. This is repeated several times and then two fingers are inserted for the same purpose. Following that three fingers, then four, and finally the whole hand is inserted to complete the work. I regard the complete relaxation of the vagina and perineum as being fully as important as the complete dilatation of the cervix before version is attempted. Many of you have seen the after-coming head obstructed by the rigid perineum in cases where this procedure was not carefully carried out. If the perineum is not thoroughly dilated before version is attempted and the after-coming head is arrested by it, it may be necessary to perform an episiotomy or apply forceps in order to complete the delivery. This ironing out process will require from five to fifteen minutes in the primipara.

The use of the left hand is advocated by Dr. Potter in performing versions according to his technique. He is not left handed. He may have been led to adopt this method because the left hand is smaller and a small hand is certainly a great advantage to the operator in such a case. However, I am inclined to think that he uses the left hand internally in order to have the stronger and more dexterous right hand for the external manipulation of the after-coming head. The left hand is inserted between the membranes and the uterus, avoiding, as far as possible, contact with the placental site, but otherwise peeling the membranes from the uterine wall in the same way it is done in Caesarian section. The operator attempts to make out the exact location of the child before attempting any manipulation. The location of the cranial sutures is disregarded because of the very great difficulty of accurately diagnosing position by that sign alone. It is the location of the ear that tells us exactly the position in which the head lies. The hand is inserted to a point near the fundus of the uterus and then the membranes are ruptured high up in order to preserve as much as possible of the liquor amnii which will facilitate both version and delivery. At the time the membranes are ruptured a towel is wrapped around the fore-arm of the operator to absorb the amniotic fluid which is expelled. Before disturbing the relationship of the foetal parts the operator makes an effort to determine the length and course of the cord. He should determine whether it is long or short and whether or not it is wrapped about the neck or extremities. Many of the untoward accidents in connection with version are due to a short cord or to the loops of the cord about the neck or legs. I recall one unfortunate acci-

dent in my own work in which delivery was seriously embarrassed by the cord which passed between the legs of the infant, up his back, and around his neck. A more skillful operator might possibly have dislodged the cord from its location before delivery, but it was necessary for me to cut the cord after the delivery of the buttocks before proceeding farther.

With the hand at or near the fundus of the uterus the operator follows down the thighs of the child and grasps both feet at the same time, according to the technique of Dr. Potter. Not all of us are able to do this, and there is no very good reason why we cannot bring down one foot and then go after the other one, if it is not easy to bring the two together. The actual turning of the child is accomplished by traction on both feet, assisted by upward pressure on the head by the free hand. Traction is continued until the knees appear at the vulva. At this point the version is said to be complete, but the real difficulties of delivery are just beginning.

Traction on the body of the child is now made by grasping the thighs and later the hips in both hands. Dr. Potter advises delivery with the child's back to the front at this stage, while other obstetricians favor a diagonal position of the body, which will allow the head to follow in the opposite oblique diameter of the pelvis. The head comes down through the oblique diameter of the pelvis in normal delivery because that diameter is longer than that of the anteroposterior diameter. It seems to me that this is a point of very little importance because the head is free to move to the right or left and it will probably be deflected to the right or left even if the child is delivered with the back squarely under the symphysis.

Delivery by traction on the body is continued until the scapulae come in view. At this point the baby is turned so as to deliver the anterior shoulder first. This is done in order to relieve the strain upon the perineum and to keep as far away from the rectum as possible. One finger may be inserted over the shoulder to bring pressure to bear upon the humerous in order to deliver the arm across the chest of the child. Another method suggested is to introduce one finger in the axilla by upward rotation of the scapula along with traction downward on the body of the child, the arm may be delivered across the chest in the same way. After the delivery of the anterior shoulder, the position of the child is reversed so that the posterior shoulder comes under the pubic arch, and is delivered in that position in the same way the first one was delivered.

Dr. Arthur H. Bill of Cleveland, suggests another simplified method of delivery of the arm. Instead of putting the fingers in and sweeping the arm down, he grasps the baby by the body with its back to the front and draws it downward and outward in a direction opposite to the shoulder to be delivered, and at the same time he makes a rotary movement with the body of the child. In this rotation the arm meets the resistance of the pubic arch and is thrown across the chest. He says that the shoulder and usually the entire arm are delivered

by this manœuvre without inserting the fingers into the vagina at all. I have had no experience with this procedure.

Up to this point I have made no mention of the pressure upon the head of the child, or following it down externally, as is advocated in so many text books. Dr. Potter maintains that pressure upon the head of the child before delivery of the arms causes the arms to be extended above the head, and therefore complicates delivery. We are all aware that when the arms are extended above the head delivery is difficult and not infrequently results in fracture of the humerus. I am inclined to think that vicious pressure on the head before delivery of the arms might result as he says, but on the other hand I believe that gentle pressure over the fundus of the uterus will keep the head flexed and thus help it to pass through the pelvis with greater ease.

After delivery of the arms, Dr. Potter makes use of pressure by the right hand over the after-coming head to assist it to the point where the face distends the perineum. His technique for the delivery of the after-coming head is decidedly different from that which we have been accustomed to follow. After determining that there are no loops of the cord about the neck, or severing the same in case they are present, the body of the child is placed astride the left fore-arm of the operator and his first and second fingers are inserted in the mouth to guide the head while the right hand exerts gentle pressure upon the occiput to force it downward. As the head descends the body of the child is elevated and finally the feet of the child are grasped by the right hand of the operator and held up so that the child's body is in a vertical position and the neck is extended. Care must be exercised to see that the neck is not over extended as it is possible to fracture the baby's neck by exaggerating this position. No great amount of force is applied to the lower jaw by the fingers which have been inserted in the mouth as this might result in a fracture of the mandible. At this point, with the mouth exposed and the baby held vertically, the operator may pause and allow the baby to breathe, while the perineum is being gradually distended by the forehead and vertex of the child. If mucous or amniotic fluid has been inspirated by the child it will tend to drain out while he is held in this position and the operator may massage the trachea downward in order to remove it from the throat and allow it to be sponged from the mouth by the nurse.

No haste is necessary if the delivery has been successful up to this point. The completion of the delivery of the head can usually be accomplished by further upward traction upon the body of the child together with moderate pressure over the fundus, after the perineum is thoroughly dilated. The baby is then placed on his right side on the mother's abdomen and the obstetrician waits for pulsations of the cord to cease before tying it.

Dr. Potter prides himself on not making any strenuous efforts to force the baby to breath immediately. His babies are not mauled or man-handled. A cyanotic baby gives him no alarm because he feels

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that respirations will start spontaneously in practically every case if the baby is left alone. A white baby, on the other hand, gives him considerable concern. If the baby does not breathe promptly when the mucous has been stripped from the throat and swabbed from the mouth, he will blow his breath upon the child to stimulate it, or in extreme cases introduce a catheter into the trachea for artificial respiration. Dr. Potter believes that the average obstetrician mistreats and sometimes injures the new-born babe by over-strenuous efforts at resuscitation.

A hypodermic of pituitrin is given immediately after the completion of the second stage of labor as a preventive against post-partum hemorrhage. The placenta is usually delivered spontaneously in fifteen or twenty minutes. If not, it is removed manually. The patient is then put to bed and a firm abdominal binder is applied.

As I said in the beginning it is not my purpose to endorse Dr. Potter's method of delivery as the procedure which we should all adopt for routine use. However, we should profit by his teachings on this subject, of which he is a master, and in which he has had unparalleled experience. He has given us a technique for podalic version which is better than anything described by previous authorities.

In conclusion let us review the most important points which he emphasizes:

No. 1. The integrity of the perineum is respected by allowing it to be completely relaxed under chloroform anaesthesia and by placing the patient in the Walcher position. This position not only increases the antero-posterior diameter of the bony pelvis but also relaxes the soft parts of the perineum.

No. 2. Before attempting version it is very necessary to thoroughly dilate the vagina and the perineal muscles and fascia by the ironing out process, which we have explained.

No. 3. The cervix must be obliterated or very easily dilatable before version may be attempted.

No. 4. Both feet are brought down at the same time, and by so doing the operator distributes traction more evenly in the delivery of the buttocks and the body.

No. 5. The anterior arm is delivered first in order to relieve the stretching and tension on the perineum and to remove the field of operation from the region of the rectum.

No. 6. The posterior arm is rotated under the pubic arch and delivered in the anterior position for the same reason.

No. 7. We should avoid following down the fundus too vigorously because pressure may force the head down and extend the arm above it, which will make the delivery of the arms more difficult.

No. 8. After the delivery of the arms, flexion of the head is accomplished by gentle pressure from above with the right hand and still more gentle pressure on the lower jaw by the fingers which have been inserted in the baby's mouth. Delivery of the after-coming head cannot be successfully accomplished if it is in the position of the extension.

No. 9. As soon as the baby's mouth is exposed during the delivery of the head, the baby's body is

raised to a vertical position and the mucous stripped from the trachea.

No. 10. Rough handling of the baby after delivery is strictly taboo, because experience teaches us that nearly all of the babies begin to breathe spontaneously if they are left alone. Only in emergencies is it necessary to use the tracheal catheter.

These are the important points in the technique of Dr. Potter to which I wish to call your attention. They are important for every one of us who is doing obstetric work. It would be impractical for every one of us to adopt Dr. Potter's method and attempt to deliver practically all of our cases by internal podalic version, but there are many of our cases which should be delivered in this way. I refer particularly to persistent occipito-posterior positions. We hesitate to attempt a version because we are unfamiliar with it and it is a rather unusual procedure in the conservative practice of obstetrics.

Not long ago I found myself in charge of rather a difficult obstetrical case; a fairly good sized baby was trying to force itself through an outlet which seemed altogether too small. I was very anxious to deliver a sound and unblemished baby, and leave the mother without any serious injury to her own body, but it was necessary to deliver the baby with the aid of forceps at the expense of a serious tear in the mother's perineum and considerable injury to the baby's head. As I pondered over the case I was reminded of the story of the cucumber in the bottle. A tiny little cucumber was growing on the end of a vine and a mischievous boy slipped it through the narrow neck of a large bottle very easily. He left it there to grow and in a short time the cucumber grew to such a size that it almost filled the bottle. Then the boy took the bottle with the cucumber in it and asked his playmates how to get the cucumber out without breaking the bottle.

How often is the doctor confronted with the same situation! We men who are seeing these trying cases from day to day welcome any slight improvement that will make the way of motherhood a little easier. The science of obstetrics has not kept pace with the strides of internal medicine, surgery and the other specialties. Surely there is something to be developed in the mind of the future which will make motherhood easier. Dr. Potter has not solved our problem for us in proposing version as the ideal method of managing all obstetrical cases. He has, however, made a very praiseworthy contribution to our knowledge of obstetrics, and other men, stimulated by his example will probably carry on to a more successful issue.

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FOCAL INFECTION IN RELATION TO DISEASES OF THE EYE

Read Before the Cabell County Medical Society

By DR. W. F. BECKNER, Huntington, W. Va.

Hundreds of papers have been written on focal infection but to my mind focal infection, its proper diagnosis and treatment is one of the most common as well as one of the most important problems we have to deal with.

Focal infection may be defined as a metastatic, systemic, or local condition due to infectious micro-organisms or their toxins carried in the blood or lymph stream from a focus or foci of infection. A focus of infection is a localized or circumscribed area of tissue containing pathogenic micro-organisms and may be either primary or secondary.

A primary focus is the first area infected; a secondary focus is the circumscribed tissue invaded by pathogenic micro-organisms carried in the blood or lymph stream from the primary focus; or, in other words focal infection either local or systemic may perpetuate the condition by a constant or intermittent bacteriemia or through the lymph stream.

This gives us an explanation of the chronic conditions which we term focal infection, which present a steady progressive invalidism or an intermittency of symptoms due to varying degrees of bacteriemia. Chronic foci may lie practically dormant and not give any symptoms, but may become acute at any time through trauma or new microbic invasion and other causes.

The site of focal infection is usually located in tissues communicating with cutaneous or mucous surfaces, the most common are the mouth, pharynx and accessory sinuses; less frequently in genito-urinary tract and male arethra, the rectum with hemorrhoids and intestines. In fact it may exist in practically any part of the body.

The principal pathogenic agents producing these conditions are strepto-coccus, staphylo-coccus, micro-coccus catarrhalis, pneumo-coccus, meningo- coccus, tubercle bacillus, colon-bacillus, gono-coccus, spirocheta pallida and others.

My belief is that there is not enough attention paid to focal infection as a real cause of diseases of the eye, for we know the eye may suffer from these infections just the same as joints, muscles, nerves and blood vessels. It is established that there is some connection between septic foci and eye diseases; also it is known that toxemias-microbic, metabolic and chemical affect the eyes in various ways. In septic and infective conditions the synovial membranes, serous membranes, conjunctiva, ciliary body and iris are especially liable to suffer from disorder or secondary infection. These secreting become excreting structures and their excretions contain microbes or their toxins. Endogenous toxins may act on the eyes over a long period of time. Superficial diseases of the eye are in many cases but the expression of local resistance to microbes and their toxins. Gouty conjunctivitis is an example of metabolic toxemia.

Review of the literature brings forth the statement that auto-intoxication produces degenerative processes in the lens and loss of power in the ciliary muscle, and there is a relationship between parathyroid deficiency and lamellar cataract and between the thyroid and toxemia. In the relationship between toxemia and ocular discomfort with or without error of refractions, there is a group of cases not relieved by correction of refractive errors alone, which require dieting, laxatives, exercises, etc. I believe that toxemias play a larger part in the onset of some forms of

ophthalmia than is generally believed.

Some of the more common diseases of the eye that may be caused by focal infections are, conjunctivitis, keratitis, episcleritis, iritis, muscular paralysis, iridocyclitis, uveitis, choroiditis, retinitis, retinal hemorrhage, optic neuritis and optic atrophy.

In our routine practice I think we too often treat the diseases and are derelict in our duty to our patient in not making a searching examination for a definite underlying cause and a definite pathological lesion. When there is no demonstrable cause a searching examination should be made for focal infection; first in the accessory sinuses, mouth, pharynx, genito-urinary and gastro-intestinal tracts.

The dependence of ocular diseases on nasal disease has long been recognized, the relation between conjunctival and lachrymal diseases and inflammatory affection of the nasal mucous membrane is often observed, while more recently the connection between the deeper seated and more serious ocular diseases and disases of the accessory sinuses, has been established. Ocular diseases arise from nasal diseases in two ways, either by absorption of the toxins from a focus of suppuration, or by contact between the pathologic process and some ocular structure. The nasal cavity should be examined carefully for purulent discharge by inspection, transillumination and if necessary X-ray.

Some time ago we had a patient come to us suffering with episcleritis of the right eye; she had been to three or four ophthalmologists for treatment, without any apparent relief. Her vision was 20/40 in right or affected eye. Left eye, vision normal. Her vision in right eye had been gradually failing for two months. Her family history negative. Wasserman negative. On transillumination we found the right maxillary antrum dark; we opened this antrum, found pus, irrigated and drained it and eye began to clear up gradually, and in a few weeks the inflammation was gone and her vision returned to normal.

Then we should examine the teeth which includes inspection of the mouth, palpation of the gums, and roentgenegrams of all teeth dead or alive, bridges, pivots, crown, etc., and if any trouble is found, the patient should be referred to a competent dentist for proper treatment. Only recently a Doctor from a neighboring state came to us practically blind. Vision right eye 2/200. Vision left eye, counted fingers at 15 inches. He did not remember whether he saw well with his left eye; he accidentally discovered that he was practically blind in this eye when a medical student 25 years ago. Right eye, vision had been gradually failing for two or three months, and became very much worse while attending a woman in labor three days before he came to us. His pupils reacted normally to light and accommodation. On examination we found that right eye had optic-neuritis with recent hemorrhage along the retinal veins, and veins very much engorged. Left eye had old choroiditis involving macular region with some optic atrophy. There was no history of syphilis and Wasserman was negative.

Urinalysis was negative. Blood pressure 135 systolic and 70 diastolic. All sinuses transilluminated clear, except right maxillary sinus which was slightly dark. His tonsils were badly diseased, and while he had never had toothache in his life, he had several crowned and devitalized teeth. The X-ray showed five or six teeth abscessed at the roots. We removed his tonsils and had the abscessed teeth extracted. He returned to his home two weeks later feeling very much better and the optic neuritis and hemorrhage were gradually clearing up. He was instructed to return in about a month for observation, but so far we have not heard from him, although indirectly I heard his vision in right eye was gradually improving. Of course we do not expect any improvement in vision of left eye.

The tonsils on account of their position and structure are more prone to infection than almost any other organ in the body. They should be examined thoroughly by inspection and by taking a hook or blunt instrument and making pressure above and behind the tonsil speezing out the secretion and bacteria; for we find that the innocent looking small imbedded tonsil with practically closed crypts are most often the seat of focal infection.

Some time ago we had a boy 12 years of age come to us on account of failing vision. His vision right eye was 20/100, left eye 20/50, which was unimproved by glasses. He had a beginning optic neuritis with congestion of the retinal veins. On further examination, we found he had badly diseased tonsils and right maxillary sinus transilluminated dark. We removed his tonsils, opened and drained the maxillary sinus, with the result that his vision began to improve and by the end of three weeks his condition had cleared up and his vision was normal in each eye.

Dr. John M. Wheeler of the N. Y. Eye & Ear Inf., reports four cases of paralysis of the sixth nerve (the nerve that supplies the exter-rectus of the eye) from suppurating otitis media. Some of these cases had to have mastoid operation and others recovered without any operation.

Then let us not forget to look for syphilis and have Wassermans made in all eye conditions where there is no demonstrable cause. Only yester, a boy 17 years old came into the office complaining of failing vision in left eye, for about two weeks. His vision right eye was 20/20. Vision left eye 20/70, unimproved by glasses. Pupils reacted to light; also reacted to accommodation. Further examination showed an active disseminated choroiditis, of left eye, involving macula region. Right eye showed two or three small patches of choroiditis. We had Doctor Hodges make a Wasserman, which he reported to us was four plus positive. I might add that the frontal and maxillary sinuses transilluminated clear, and he had diseased tonsils.

Then search should be made for latent infection in the genito-urinary tract seminal vesicles, prostrate, etc.

And last but not least let us turn our attention to the gastro-intestinal tract. A great deal has been written about the relation between certain diseases of the eye and the gastro-intestinal tract, but very lit-

tle has been told us how to prevent them. The first two things to consider in most cases of toxemia of this great canal are diet and the condition of the teeth, errors of diet and pyorrhea alveolaris are the starting points of most cases of hyper- and hypo-acidity and toxemia of the intestinal tract. How often do we ophthalmologists discuss diet with our patients? If we are unable to work out their gastro-intestinal condition we should refer them to the internist for more thorough examination and treatment.

In conclusion I wish to state there should be closer co-operation between the ophthalmologist, on the one hand, and the pathologist, the internist, urologist and roentgenologist on the other.

Moore-Beckner Hospital.

MODERN TREATMENT OF BRONCHIAL ASTHMA AND HAY-FEVER

Read Before the Cabell County Medical Society

By OSCAR BIERN, M. D., Huntington, W. Va.

Our present conception of Bronchial Asthma differs in many ways from that which has been handed down unchanged for many years. A careful analysis of the symptomatology in each case lends so much to the diagnosis of the probable cause that it seems well worth while to describe the clinical aspects in considerable detail. I shall first consider a true or typical attack of Bronchial Asthma. Some type of foreign protein acting either centrally or peripherally as an irritant to the nerves that innervate the smooth muscular tissue lining the bronchi, causes a spasm or constriction of the bronchial musculature. The muscles of inspiration are equal to the task of drawing the air through the constricted bronchi into the air-cells of the lung, but the elasticity of the lungs, together with the muscles of expiration are not sufficient to expel the air in the normal time, so that expiration becomes prolonged and is finally interrupted by an inspiration before the normal amount of air has left the lungs. Consequently as the attack progresses, the lungs become overdistended with residual air, and sooner or later this overfilling of the lungs with air causes labored inspiration, although expiration remains more prolonged and difficult than inspiration. The attack is now at its height and may continue for only a few minutes or a few hours. At this time the patient may develop a dry cough which in a short time may become productive in raising a more or less characteristic type of sputum. This sputum is thin, clear, slightly tenacious, and in it are suspended small white tapioca-like masses called Laennecs pearls. With the appearance of the sputum comes the decrease of the attack and the patient evinces very little discomfort other than fatigue until, hours, days or months later another foreign protein is encountered when the same chain of symptoms again ensues.

A typical Bronchial Asthma or Asthmatic Bronchitis is another type of attack commonly met with in patients who in the past have been considered as Bronchial asthmatics but who have not, according to our present knowledge, true spasmodic attacks of Bronchial

asthma, as previously described. In the past these two distinct types of attacks have not been separated and consequently much confusion. The atypical type of Bronchial asthma is usually associated with respiratory infections such as colds and bronchitis, chronic bronchitis, catarrhal conditions of the nose and throat and occasionally with infections of the teeth, tonsils, sinuses and rarely with infections located in other parts of the body. The primary cause in this type of asthma is bacterial infection and not a protein.

Patients with this type of asthma develop their attacks in one of two usual ways, the first desribed being the more common: the patient has been subject to Bronchitis for a period of months or years which has become progressive in severity. At first possibly there is only a slight unproductive cough which may have followed a neglected cold, later the cough is more annoying and may become productive of expectoration. There may or may not be a slight elevation of temperature and not uncommonly the patient is thought to have tuberculosis. After a time there is slight dyspnea on exertion, later still respiration becomes wheezy and if this comes on in attacks he is thought to have Bronchial Asthma, though here the dyspnea is of the inspiratory instead of the expiratory type. In reality this condition is a severe type of bronchitis, and does not closely simulate typical bronchial asthma; it is really Asthmatic Bronchitis.

The manner next most common to the preceeding in which patients develop this kind of Asthma is as follows: The patient as before has been subject to Bronchitis and although he is more or less troubled with it while awake, he is usually free from marked attacks of dyspnea and suffocation, but during his sleep the attacks appear and generally awake him during the early morning hours. This type of asthma most usually develops during or past middle life. The sequence of events which takes place in these two types of attacks of atypical bronchial asthma is as follows: The bacterial infection in the bronchi causes the usual type of bronchitic sputum, which may be thick but is not tenacious or jelly-like and it is raised with little difficulty while awake. At times however the sputum becomes very tenacious and clings so fast to the Bronchial wall that repeated coughs will fail to disldoge it. The stimulus to coughing however is so great that the patient repeatedly coughs and the more he coughs the more dyspneic he becomes until finally the tenacious sputum is raised with a cessation of symptoms. Here there is only a slight constriction of the bronchial mucosa partly mechanical due to the secretion and partly spasmodic due to the local irritation. After the attack has subsided the patient is not entirely free from symptoms; he still has more or less cough and expectoration and generally a slight elevation of temperature.

If all cases of bronchial asthma could be placed as easily in either of the two groups, namely typical and atypical asthma, the disease would be comparatively simple from the standpoint of diagnosis, prevention and treatment. Unfortunately this is not the case. The description

of the atypical variety holds for all cases of that type in that it is a chronic condition from the beginning; the patient's symptoms are no different after he has had the disease for years than it was at the beginning. The true or typical bronchial asthmatic when the condition develops during childhood or thereafter presents the typical attack as already described, until because of frequently repeated exposure to the protein he has frequently repeated attacks. Repeated attacks cause so much irritation that bacterial infection gets a hold and a resultant chronic bronchitis is superimposed upon a true bronchial asthma. When this occurs the patient may present symptoms closely simulating the atypical variety. The history that may be elicited from the patient describing the onset and the first attacks of the condition are a great aid in determining the kind of asthma aided by protein skin tests to be described.

The method of action of the foreign protein in causing an attack of asthma is purely one of anaphylaxis, the patient being sensitized by a first dose of a protein and shocked by a properly spaced secondary dose. That this is not theory alone but of practical importance is borne out by the fact that typical attacks of bronchial asthma can be produced in the guinea pig by sensitizing to a foreign protein and then instilling horse serum intranasally when a typical asthmatic attack will occur, and second by the cures effected in human beings and marked relief of symptoms in many others. Antigen of second one plus antibody of first equal toxicity.

The best of several methods to determine the protein sensitivity of a patient is the cutaneous or skin test. It is performed in the following manner. A series of small cuts are made on the flexor surface of the fore-arm about one inch apart. These cuts should be deep enough to cause only a slight exudation of serum and not active bleeding. On each cut is placed a protein and to it is added a drop of tenth normal sodium hydroxide which dissolves the protein and permits of rapid absorption. At the end of a half hour the proteins are washed off and the reactions noted and being particular to compare the reactions with controls to which no protein has been added. A positive reaction consists of a raised white urticarial wheal surrounding the cut measuring not less than 0.5cm. in diameter. The following kinds of proteins should be used in the average case as a routine, other proteins being added after a careful history as to diet, seasonal attacks and infections: Horse-hair or dandruff, cat hair and feathers, the pollens of timothy, red-top and ragweed, staphyloccoccus aureus and albus, streptococcus hemolysans and viridans, and the common foods such as eggs, milk, cereals, meats, chicken, potato and any others that the patient is used to eating frequently.

Treatment of bronchial asthma consists of the following kinds, preventive, drug, specific protein, non specific protein, operative and climactic. The drug-treatment of

asthma is most disappointing. In the asthmatic bronchitis class potassium iodid in 10 grain doses three times daily offers some relief. This drug thins the secretion in the bronchi thus enabling the discharge of an otherwise thick tenacious sputum. This drug is of no value in the sensitive type of asthma. The most reliable and yet the most harmless drug that will relieve the acute attack of either type of asthma is adrenalin. This is best administered in 15-30 M. doses and repeated as often as necessary. Next to adrenalin, atropine subcutaneously in large doses is productive of good results. There are many other drugs that may be mentioned but most if not all are productive of little good.

Specific protein therapy which is the most successful proceedure in the treatment of Bronchial Asthma consists in desensitizing the patient with those proteins which the individual is found to be sensitive by the skin or cutaneous tests. Feeding small amount of proteins, if the protein be a food is a long and tedious measure but in those cases where the patient has been conscientious to observe the rigid routine, it has been productive of complete immunization. Omitting a certain food is much easier and the one usually resorted to, but this often works hardships in giving up an article of diet to which the patient has been accustomed and quite often the patient may retain these offending proteins if they are prepared in a different manner. For example a patient who is sensitive to potato may eat them if they are baked because subjecting them to extreme degrees of temperature changes the character and toxicity of the protein. Those patients who are sensitive to animal emnations or to pollens are best treated by desensitization, starting with the lowest dilution of the protein that will not give a positive skin test and gradually increasing until the patient can tolerate 1cc. That the dose is well received is shown by the skin test becoming negative after successful treatment and also by the fact that an increase of the dose greater than that sufficient to produce a positive skin test will cause the appearance of asthmatic symptoms.

In both typical and atypical asthmatics with marked bronchitic symptoms, treatment by autogenous vaccines made from the nose and throat are used and excellent results follow their administration. Streptococcus hemolysans is the organism usually implicated but staphylococcus pyogenes aureus is also found. The use of stock vaccines are of no benefit. Non specific protein therapy may do good but it throws little light on the actual cause of the disease. Operative measures such as bronchoscopy tend to relieve the spasm if not due to a specific protein. Cleaning up of infected foci as the teeth and tonsils, removal of adenoids and nasal spurs and polypi are all productive of much good but before resorting to any operative proceedure the skin tests for protein sensitization should be done.

A GROWTH WITHIN THE SPINAL CANAL COMPRESSING THE CORD AND ROOTS LOCALIZED: OPERATION: RECOVERY

Remarks Upon the Necessity of Diagnosing the Process Responsible for Pain in the Back

By TOM A. WILLIAMS, M. B., C. M.
Washington, D. C.

A woman of 39 was referred January 15th, 1923, by Dr. Brady, because of a progressive loss of power in the legs along with gradually increasing severe pains which had begun in September 1922. Pain had also occurred in the back, and there was tingling as high as the lower abdomen. She had had no acute illness at that time, but the preceding June what was called a uterine cancer had been removed by radium without previous histological examination. The same surgeon had reopened the abdomen in November because of the intensity of pain after finding nothing abnormal with the X-ray, but nothing pathological was found.

Examination showed a woman slightly wasted, whose facies portrayed long suffering. She moved the left leg with difficulty and the foot not at all. There was marked atrophy of the left calf which measured 12¼ inches, as against 13¾ on the right. The lower part of the left thigh was also much atrophied, the measure being 15½ inches at the midway point as against 19 on the right. The left toes could be flexed but dorsiflexion was almost absent. Both flexion and extension of the left knee were both much weaker than on the right side, where they were also diminished in strength.

Reflexes of the left leg were feeble, and on the right the patellar reflex was much exaggerated, and there was ankle clonus, although the toes flexed on stroking the sole. Abdominal reflexes were over-active.

Sensibility: The only disturbance was some indefinite hyperaesthesia in the groins. There were no other neurological signs.

The diagnosis made was an extra-medullary neoplasm implicating the 3rd, 4th and 5th lumbar roots on the left, and compressing the spinal cord at a level as high as the 3rd lumbar segment. In view of the history, this was of course believed to be a metastasis from the uterus.

Immediate operation was recommended as the best way to a possible favorable prognosis.

Operation was performed by Dr. Horgan on July 24th and revealed the dura mater bound down by a mass the size of a large bean at the level of the 3rd lumbar segment. Neither roots nor cord were infiltrated, and no xanthochromia appeared in the spinal fluid below. Chemical and microscopial study showed the fluid normal also.

The growth was removed, and proved to be not a neoplasm but a haemorrhagic pachymeningitis of chronic type. In part of the 2nd lumbar vertebrae, which appeared soft to the surgeon, no abnormality was found.

Since the operation no severe pain has been felt by the patient and she has returned home walking and comparatively comfortable. Complete recovery of motility awaits only time for regeneration of those anterior root fibres degenerated in consequence of pressure.

Sections from the small discolored piece of tissue show chronic inflammatory reaction with some hemorrhage and necrosis. The lesion apparently occurred between the dura and the periosteum; within it there are two well defined areas of extravasated blood surrounded by fibrin and partially organized tissue and considerable fatty areolar structure. The condition is essentially a plastic one, there being only a moderate infiltration of polymorphonuclear leucocytes, considerable endothelial proliferation and emigration and some round cell infiltration. There are many new blood vessels produced, the walls of some showing definite endothelial proliferation. The hemorrhage has apparently occurred in the fatty areolar tissue between the dura and periosteum, resulting in the obliteration of some of the fat spaces and accompanying necrotic changes in extravasated material. Diffusely scattered through the tissue is some fresh hemorrhage but this is probably the result of operative manipulation. Autolytic and phagocytic activity of the old blood has brought about the production of a small amount of hemosiderin pigmentation.

Decalcification of the piece of bone submitted for examination shows no distinctive pathology, the Haversian and interstitial systems being normal in their histological architecture, the marrow being quite cellular and containing a small amount of fat, considerable normal cellular elements with a possible increase in eosinophilic content. The periosteum and the small piece of fibro-cartilage, probably adjacent to the dura, from which the tissue above described was removed, shows some discoloration and a slight amount of chronic plastic change similar to those already mentioned.

Careful search fails to reveal any evidence of a primary or metastatic malignant condition. No evidence of any infectious agent could be demonstrated in the tissues.

A new growth in the spinal canal usually exists for a long time undiagnosed. This is because its commonest symptom, pain, is of course, referred to the terminations of the spinal root on which it presses. Such cases are often mistaken for neuralgia of the brachial, intercostal or sciatic regions, and rested, baked and drugged for a long time. Often they fall into the hands of manipulators, who increase the patient's sufferings. Proper neurological study will, however, reveal focal physical signs: For instance loss of one Achilles reflex, hypoaesthesia in the distribution of one or more spinal roots, a local weakness of the muscles supplied by a single root. Shooting pain on sneezing and coughing indicates disease within the spinal canal. Of course when the spinal cord itself is invaded or compressed, the diagnosis is easier. It can be made long before paraplegia occurs, or before micturition is inter-

fered with. It should be made before spinal block gives rise to alterations in the spinal fluid.

The prognosis is most hopeful when detection is early, for even an intramedullary growth may spontaneously extrovert when the cord is slightly incised over it, so that it can be removed a week or so later without further damage to the cord. Of course the exact level must be previously determined by proper neurological study. Circumscribed serous meningitis may not be distinguishable clinically, but this if not as it is often syphilitic, in any case may require laminectomy. Of course radicular and spinal syphilis may present a focal syndrome, but there is little danger of overlooking this disease now-a-days.

The lesson for us is that no case of protracted neuralgic pain should fail to have neurologic study. And this is also true of cases of progressive weakness, tingling or numbness, even when no pain occurs, as in some cases of spinal tumour.

To manipulate without diagnosis because of pain in the back or limbs is unjustifiable.

Massage is a most useful therapeutic measure, it is not sufficiently employed; but that is not to say that it should be employed indiscriminately. Manipulation of the spine can be most hurtful, as in cases of tumour like the above. In sciatic inflammation much harm can be done, although in mild cases of chronic sciatica proper massage often affects a cure. The manipulations, however, must be guided by a physician experienced in dealing with neuritis disorders. It must also be supplemented with constitutional treatment in most cases. Manipulation as a routine is faulty practice. It should not be used as a means of suggestion in hysterical individuals. Hysteria should be met by dealing with the mental processes responsible for it, even when it is manifested by physical symptoms. Indirection of method even when termed frank suggestion only adds to the patient's susceptibility to further hysteria.

The frequency of people's reference to the spine of complaints of which the source is elsewhere must not, however, blind the clinician to facts which even the X-ray may not disclose. When compensation for injury is in question, the frequency of hysteria may conduce to the overlooking of a real lesion as in two cases recently seen. In one malingering was suspected for several years, until the pain complained of was relieved by a fixative operation, which I recommended after a month's study of the case. In another instance, manipulation of the neck removed a rigidly and violent incapacitating pain in a few days. This had been erroneously attributed by two psychiatrists to traumatic neurosis, and six months hospitalization had been recommended.

In another case a severe pain in the neck which had been attributed to "neurasthenia" was found to have a physical source in a faulty position at the keyboard.

In still another case psychoneurosis had been emphasized where the motive of shirking responsibility was evident. In reality, the pain in the back and leg arose from a

localized radiculitis which was revealed by a careful examination of the sensibility which revealed a narrow zone of hypoesthesia running down the leg in the distribution of the 5th lumbar root along with a loss of the Achilles reflex on that side. This had been overlooked in a neighboring city by a physician's group of the highest efficiency.

In only one of the above instances was massage indicated. They illustrate then the supreme importance of a diagnosis of the nature and location of the process which is producing the patient's discomfort. A mere name is not diagnosis. See Dif. Diag. Neuritis & Radiculitis (Arch. of Diagnosis, 1922).

1746 K Street.

ANNOUNCEMENTS AND COMMUNICATIONS

Dear Doctor Bloss:

Does experience teach us correctly or incorrectly?

Some months ago the Editor of the American Physician asked for the experiences of the profession in giving solid food in Typhoid.. I gave mine and received comments from him that seemed to question some of my statements. I was also questioned by a Physician in Tennessee, who seemed to doubt my cases being Typhoid, and wished to know how I knew they were Typhoid.

We were writing about Typhoid, and our means of making a diagnosis are about the same in West Virginia as in Tennessee, so far as I have been able to ascertain, therefore did not answer.

When I have tested anything for several successive years and have never had occasion to find fault with it, I think it is worthy of consideration until something better presents itself. Nor, will I give heed to any criticisms from physicians who have not tried out the same thing and found it incorrect. In other words, "I am from Missouri." I am now going to make some statements that are contrary to the teachings of the best and ablest men in medicine today, and I feel a hesitancy in doing so for that reason, but I am anxious to know if any other physicians have had the same experience.

First, I will say I have been in the practice of medicine for twenty-seven years, and the greater part of the time in the coal fields of West Virginia, where we have not the means of combatting contagious diseases that you have in the cities and larger towns. During the last twenty-seven years I have had Scarlet Fever to treat in one or the other of its forms almost every year, and among a class of people that are rather prolific, with not the best surroundings in most instances, and where isolation was impossible. During the first two years I would run into well developed cases in families where I could isolate them and would do so even after other small children had been exposed and of course followed the same after treatment that I do today, and would have the one case in the family. Sometimes I would find cases where isolation was impossible with eight to ten small children in the family, and in a three or four room house, and still have but the one or

two cases that I found on the first visit.

After two years of this work I decided to not attempt isolation in any case, and for twenty-five years I have left other small children right in the room with them day and night, and never in a single instance had a second case in the family or community unless it was contracted from some outside source afterwards.

Preventative Treatment—When the eruption is almost faded, but not entirely I begin with a bichloride sponging, 1 to 5000 or 8000 of whole body (head and face also, using precaution about the eyes and mouth) followed with a good rub with carbolized petrolatum. After first day this procedure is preceded by a bath with soap and water to remove all the grease. This is kept up for ten to fourteen days and then discontinued and patient released.

By these experiences I am of the opinion that the only contagion there is in scarlet fever is during the period of desquamation and that if we disinfect the scales we prevent the spread of the disease, and do away with the annoyance of quarantine and expense and trouble of fumigation.

I know some of the profession will say, "What a fool he is," and that "His license should be revoked," but any of you that have had a similar experience will do me a great favor by sending same to the Journal, because I am anxious to know—"Does experience teach us right or wrong?"

EVERETT WALKER, M. D.
Adrian, West Va.

January 18, 1923.

Dr. Robert A. Ashworth, Secretary
West Va. State Medical Assn.
Moundsville, W. Va.

My dear Dr. Ashworth:

With the completion of plans for a special train to the annual meeting of the American Medical Association, which is to be held at San Francisco, June 25-29, physicians from your State Association will undoubtedly be interested in joining the Ohio delegation.

The special train will be assembled at Chicago as a central starting point. It will be an ultra modern, all steel, fully equipped and thoroughly inspected train, with all of the conveniences and comforts expected from high class railways.

Enroute to Frisco, the party will pass through many of America's foremost scenic regions. Several interesting stop-overs and side-trips have also been arranged, details of which are given in the attached copy of the official itinerary.

For the return trip, no effort will be made to keep the party together; primarily because of the diversified attractions offered. Every person has the option of selecting the route returning which has the most appealing features.

A representative from the railway company is to accompany the special, to insure the carrying out of all plans.

The "all-expense" plan has been adopted, which is based upon the price of actual cost of the trip out

and covers every item of expense from Chicago to San Francisco; also railroad transportation from the home city to Chicago and from San Francisco to the home city upon the return journey.

A complete schedule of prices will be available in the near future.

With best personal regards and assurances that the Ohio delegation would be pleased to welcome members from your state, I am

Cordially and sincerely,

DON K. MARTIN,
Executive Secretary.

March 20, 1923.

Dr. James R. Bloss, Editor
West Virginia Medical Journal,
Huntington, West Va.

Dear Sir:

Will you kindly publish in your Journal the following information concerning examinations by the National Board of Medical Examiners.

Part I, June 25, 26, 27, 1923.
Part II, June 28, 29, 1923.
Part I, Sept. 24, 25, 26, 1923.
Part II, Sept. 27, 28, 1923.

All applications for these examinations must be made on or before May 15th.

Further information may be obtained from the Secretary, Dr. J. S. Rodman, 1310 Medical Arts Building, Philadelphia, Pa.

Very truly yours,

J. S. RODMAN,
Secretary.

Bluefield, W. Va., Mar. 15, 1923.

Dear Doctor:

Kindly read over the enclosed Bill now before the House and Senate of West Virginia, which you no doubt desire to see passed, adding to the bill which has already been introduced the word "Hospitals," along with the words, "restaurants, hotels and boarding-houses," protecting the hospitals as well.

Do your utmost to see that it is passed by both houses and made a law.

Get busy now.

Yours fraternally,

H. G. STEELE,

A bill to amend and re-enact Section 32 of Chapter 145, of the Code of West Virginia, relating to fraudulently obtaining food and lodging from hotels, inns, eating, lodging or boarding houses, restaurants and hospitals, and to fix the penalty thereof:

Be It Enacted by the Legislature of West Virginia:

Every person who shall at any hotel, inn, eating, lodging or boarding house, restaurant or hospital, receive or cause to be furnished any food or accommodations with intent to defraud the owner or keeper of such hotel, inn, eating, lodging, or board house, restaurant or hospital, by the use of any false pretenses or device, or by depositing in such hotel, inn, eating, lodging or boarding house, restaurant or hospital, any baggage or property of value less than the amount of such credit, or of the bill by such person incurred, with such fraudulent intent, and any person, who after obtaining

credit or accommodation at any hotel, inn, eating, lodging or boarding house, restaurant or hospital, shall abscond from such hotel, inn, eating, lodging or boarding house, restaurant or hospital, or shall remove or attempt to remove therefrom any baggage or personal property of any kind subject to the lien hereafter mentioned, with intent to defraud the owner or keeper of such hotel, inn, eating, lodging or boarding house, restaurant or hospital, without having first paid, satisfied or arranged all claims or bills for lodging, entertainment or accommodation, shall be guilty of a misdemeanor, and, upon conviction thereof, be fined not less than twenty-five dollars nor more than two hundred dollars, and may, at the discretion of the court or justice trying the case, be confined in the county jail for a term not less than ten nor more than thirty days. Any justice of the peace for the county where the offense was committed, shall have concurrent jurisdiction of such offense with the circuit or other courts of said county. The owner or keeper of any hotel, inn, eating, boarding or lodging house, restaurant or hospital, shall have a lien upon, and may keep possession of, the baggage or other personal property of any kind, or any person or persons which he or they may have therein, for all such claims for bills for lodging, entertainment, or accommodation, to the extent only of his said claim or bill; and after the expiration of three months from the date of the departure of such person or persons, and all or part of such claims remaining unpaid and not arranged, said property, or such part thereof as may be necessary shall be sold to the highest bidder for cash, in the same way, upon the same advertisement, and by the same officers, that personal property is now sold by execution; and any money remaining from said sale, after satisfying the claim, costs and expenses of sale, shall be paid to the person or persons, whose property was sold.

A Few Things the Public Should Know and a Few Things the Doctors Do Know

"This is an awful subject, and one I almost fear to touch with my unhallowed hands; but I can tell you what those say who have authority to speak."—Huxley.

It must be admitted by all, that freedom from pain and disease, the enjoyment of health and that cherished feeling of well-being, collectively, constitute the Grand Prize of humanity.

The care and keeping of these inestimable treasures, must of necessity be entrusted to the Doctor of Medicine.

Is it not justice then, that the possessors of human life should be provided with some reliable means of knowing the actual assets, as well as the liabilities of the various Health Bankers with whom they must deposit their most sacred treasures?

May I also ask, is it not the imperative duty of all truly altruistic physicians to fearlessly expose every decoy and connivance calculated to mislead and entrap the public in the matter of depositing their only source of earthly happiness?

Doctors should encourage more intimate and co-operative relationship with the public, with the object in view of proving that we are not entirely egotistic in our dealings and associations with our fellow-man.

The public should know the exact formula for making doctors and Specialists. Especially Specialists.

I believe the public would be greatly benefitted, and the dignity of the profession enhanced, by the publication, and broadcast circulation of a small pamphlet setting forth clearly the minimum educational requirements for the degree of Doctor of Medicine and the distinction of Specialist.

Such a publication would only serve to disarm the pretentious, incompetent and unfit members of the profession. It would simply show the public that certain products of the doctor factories had been "False and fraudulently labeled" and were ordered destroyed by "The Propaganda for Reform."

I do not think it would seem ambiguous on the part of the profession to let the public know that there is a wide difference between being just a doctor and being a specialist in the true and accepted sense.

Suppose we just open our hearts to "The Dear Public" and tell them frankly that the requirements for attaining the doctorate degree in medicine are:

The completion of the curriculum of a standard four year High School; plus two years of elective college work; added to this four full years of study and training in an accredited medical college.

Nor is this all. The young M. D. at this stage of his career finds himself hopelessly unprepared to contend with the difficult and complex conditions incident to the expectations and demands of modern civilization.

He is, of course, well grounded (in a dogmatic way) in the principles of his chosen profession, but is entirely lacking in the application of the fundamentals he has remembered only in a vague way, and for this reason is compelled to spend one or two more payless years in order to learn something of the practical side of his profession.

Be it known to all men: That, at the completion of these eleven or twelve years of privation, drudgery and shocking depletion of his dad's bank account our young man is only a Doctor.

When, and by what means may he become a Specialist?

The modest and charitable formulae of the American College of Surgeons for creating Specialists is:

The aspirant must be a graduate of an approved medical school, have had at least one year as an intern in a recognized hospital and two years as an assistant in the specialty of his adoption. Added to this he must have devoted from five to eight years to special training and practice. These, mind you, are the minimum requirements for the doctor who aspires to advancement necessary to be recognized as a Specialist.

Yet we occasionally (Yea! quite too frequently) see some (otherwise respectable) member of our profession suddenly lose control of his mental poise and conscientious

scruples, and become intoxicated with an innate craving for personal aggrandizement and ill begotten gain, and in the midst of a nightmare in which some spook deludes him into believing that he has been miraculously transformed into a real Specialist, or that he could, at least, cajole the public and hoodwink the profession into accepting his wild hallucinations as real facts.

He arises from his lethargy, and in his delirium goes forth to proclaim his greatness from the very housetops.

While we all know that this diabolical scheme of perpetuating quackery is so old that it antedates all historic records, we must admit that it is still a live wire and retains its potency, even to the lowest decimal (Homeopathic) dilution or trituration, and will continue to thrive so long as the medical profession is content to look placidly on with silly grimaces, while the quick-made specialist is defrauding the people, and disgracing the practice of medicine.

It is obvious that the so-called specialist of the type I have described could in no-wise render acceptable and satisfactory services, and could be regarded as nothing short of a menace to his community.

It would be quite as absurd to instruct a boy in the definitions of mathematical axioms and expect him to solve a problem in conic section.

The public have the right to know every ingredient entering into the construction of the specialist and to demand that none of them be substituted or omitted and the General Practitioner should demand the exact formula in the matter of referring patients.

The American College of Surgeons in its very commendable effort to standardize our hospitals found easy sledding in the matter of ideal hospital paraphernalia, but when it came to the matter of supplying a satisfactory personnel (even in the larger cities) the problem became a most perplexing one. Yea! An invincible one.

Definite department heads, staff members, etc., were to be supplied. Supplied with what? Just whatever the community could rake up.

This gave an irresistible impetus to the incompetent to embellish the advertisement some staff appointment created, with some very questionable methods. The worst being the abrupt transformation from a plain every day doctor to that of a high class Specialist.

This reminds me of a time when I filled the first chair as solo clarinetist in a band of twenty-eight members. On one memorable occasion our director gave us a short address, in which he said, "I have a band of twenty-eight members, composed of six musicians and twenty-two chair-warmers."

I think the public should know who the musicians are and who the chair-warmers are.

In conclusion I desire to go on record as an unmasked adversary of all such mockery and I boldly

assert that I feel it my duty, as well as my privilege to denounce and expose all such medical chicanery, whenever and wherever the opportunity presents itself.

While the choir sings "Will there be any stars in my crown," let the brethren come forward and join the pastor in the righteous condemnation of quackery in any and all of its guises.

E. W. STRICKLER,
Fairmont, W. Va.

PRELIMINARY PROGRAM
American Proctologic Society

Twenty-fourth annual meeting, Los Angeles, California, June 22 and 23, 1923. The profession is cordially invited to attend the public sessions. Meeting place and headquarters, Hotel Alexandria. Clinics, Los Angeles County Hospital.

Presidential address—Dr. Emmet H. Terrell, Richmond, Va.

1. A Plea for the Protection of Young Wives against Venereal Diseases—Dr. Joseph M. Mathews, Seattle, Wash.

2. Gastroenteroptosis: Treatment—Dr. William R. Axtell, Bellingham, Wash.

3. Circular Amputation for Marked First and Second Degree Prolapse of Rectum. Lantern Slides. —Dr. Frank C. Yeomans, New York, N. Y.

4. Case Reports: Villous Tumor, Large Papillary Adenoma, Fistula. Lantern Slides—Dr. Harold E. Dunne, Washington, D. C.

5. Pruritus of the Anus—Dr. Joseph F. Montague, New York, N. Y.

6. Hydrochloric Acid in the Treatment of Rectal Affections — Dr. Granville S. Hanes, Louisville, Ky.

7. The Ambulant Treatment of Ano-rectal Fistula—Dr. Arthur C. Crookall, Seattle, Wash.

8. Ano-rectal Operations under Local Anaesthesia—Dr. Joseph F. Saphir, New York, N. Y.

9. Case Reports: Lipoma of Buttock Resembling Female Breast with Nipple. Photographs — Dr. Isaac L. Ohlman, Pittsburg, Pa.

10. Case Report: Tuberculosis of Anus and Rectum—Dr. William M. Beach, Pittsburg, Pa.

11. Cancer—Dr. J. Rawson Pennington, Chicago, Ill.

12. The Location of Internal Hemorrhoids and its Bearing on Treatment—Dr. Louis J. Hirschman, Detroit, Mich.

13. Rectal Discomfort Due to Extra-Rectal Pathology—Dr. Alois B. Graham, Indianapolis, Ind.

In addition to the regular papers, at convenient times during the scientific and clinical sessions, there will be demonstration of instruments and operative technique and discussion of several important protologic subjects as requested by certain Fellows.

RALPH W. JACKSON, Secy.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

C. R. ENSLOW, M. D.
J. E. RADER, M. D.
W. E. VEST } - Assistant Editors

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

Editorial Office: 804 Lincoln Place, Huntington, W. Va.

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THE CHIROPRACTIC BILL

These are strenuous times for the medical profession.

How other members of the fraternity feel we do not have any way of knowing but personally it seems that at no time in the eighteen years of our experience has there been such a state of affairs of a serious nature confronting physicians in West Virginia.

The Legislature is in session and quite a number of bills are before our law-making body which are of vital importance.

In another section of this issue you will find communications. Glanced at casually they seem of no import. If you read them and then think them over you will realize that often we are heedless of the true meaning of matters when they are presented to us.

One of the most important matters now up for consideration is the bill relating to Chiropractic licensing. Personally we have almost reached that point where we feel as if we had better just let the fence

down and let all manner of charlatans fatten off a gullible public.

Our profession is not perfect by any manner of means. Still we have from time immemorial been striving to cure disease and, what is far better and more important still, to prevent it. That we have constantly endeavored to lessen the source of our income and to protect the health of our fellow-men, is entirely lost sight of. We are accused of selfishness and fear of starvation and the persecution of the poor, down-trodden but deserving charlatans.

At present there is a very astute and resourceful attorney in Charleston lobbying for the passage of the bill licensing the Chiropractors. They have found, so they say, that men claiming to practice this art are fraudulently foisting themselves on the public and it is to prevent the deception of the people that they wish to legally protect them against such fraud.

It is so ludicrous that we might ignore it entirely was it not so serious.

There follows an editorial from a sister state journal which contains much food for thought.

THE INDIFFERENCE OF THE MEDICAL PROFESSION IN LEGAL MATTERS

Experience has taught us that when we want to really accomplish a task it is better to give it to a busy man; when we want it to be done more rapidly and with accuracy we assign it to a very busy man. The medical profession has taken this so literally that when legal enactment is threatened they sit back supinely trusting that their duly elected officials will do all that is necessary to protect them, and just as thoroughly determined that they will do nothing to protect themselves—a most instructive example of "expectant treatment."

Is it not about time that we awake to the need of self-defense? Each time the houses at Albany adjourn without actually declaring the practice of medicine to be a felony, the profession takes a long breath, and with a feeling similar to Micawber, on the first of the year, when he renewed his I. O. U.'s, they "thank God's that over."

The chiropractors think enough of legalizing their chicanery to pledge large sums for the furtherance of their interests—they pay the legal profession well to defend them—they appear both in person and by testimonial—they plead persecution and prosecution — they weep great salt tears on the shoulders of our lawmakers, while at the same time they are stealing the lawmakers' birthright, viz., safeguarding the public from quack and charlatan.

Let the medical profession start its own public propaganda. Tell the people the truth. We plead only for a just and proper legal restraint and a regents' control which is applicable to all professions in the State. We think there is a difference between six years in the study and preparation for a medical career and six weeks in the preparation of a chiropractic. We don't beliece that a chauffeur, who could not write his name, is qualified to be a full-fledged chiropractor or anything else in the above time. We may be prejudiced, but we state it as an honest conviction. On the

other hand, ought we to blame the embryo chiropractor? It is a short-cut to a gullible public—the Palmer School, which dominates the advertising, pleads his cause for him and does it well. He has only to raise funds to pay for the course, save sufficiently to purchase a sign and a table, and there you are—perfectly simple, simply perfect.

It is unfortunate that the medical profession does not take on self-insurance—pay dues to the State Society sufficient to maintain the proper machinery for its own protection. We pay two or three hundred dollars yearly as dues in a golf club—health insurance. Think of it—three hundred dollars for health and amusement, and the Medical Society of the State of New York gets five dollars each from its 9,500 members to carry on the work of survival, not to mention the 5,500 other physicians in the State who do not care enough about medical matters to even belong to the State organization.

We never will be able to do the medical business of the State on a five dollar per capita basis. Let the need of a greater revenue be agitated and published, and we believe that with better organization and a wider knowledge of facts and the good accomplished both profession and laity will realize their mutual obligation.—N. Y. State Medical Journal.

TRAINING VETERANS TO BE CHIROPRACTORS

The United States Veterans' Bureau has not discontinued the practice of permitting veterans to enter chiropractic schools but a modification of the conditions on which trainees are entered for chiropractic training was announced last July. According to this modification no veteran will be allowed to train for chiropractic in states where the practice is illegal. He must establish, by affidavit or otherwise, that it is his purpose after completion of training to practice in a state where chiropractic is legal. The Bureau has established an educational requirement of high school graduation or its equivalent before a veteran will be permitted to enter a chiropractic school.

In the 9th District of which Mr. M. E. Head is district manager with headquarters at St. Louis, no man is placed in vocational training until he has been passed upon by a medical officer who either has examined the man personally or has a complete medical record at his disposal.

Doubtless these new rules result from the resolutions addressed to the Bureau and adopted by the American Medical Association at the St. Louis meeting, the resolutions having been introduced at the request of the St. Louis Medical Society.

The Bureau of Legal Medicine and Legislation of the American Medical Association is still active in the effort to induce the Bureau to discontinue the practice of training veterans in chiropractic schools. —Ed. J. of Missouri State Medical Assn.

LOST AND STRAYED MEMBERS (AND JOURNALS)

The postoffice appropriations have not been provided to meet the requirements of some of the offices in West Virginia. Among those having to cut off a part of their

forces has been the office at Huntington. This month all out-going mail of the second class has been piling up at a tremendous rate.

It was a week or ten days after the Journal was delivered to the postal authorities before it could be gotten out to the members in Huntington.

If the members who have not received their March copies will notify the Editor, he will endeavor to supply you.

For the past three years there has been more or less delay in the mailing out of the Journal. In these instances it has been due to causes not preventable.

We have some complaints that members do not receive their copies. In the great majority of these instances it is due to confusion arising from incorrect postoffice addresses. Every name sent to us by Secretary Ashworth is on the mailing list with the postoffice address as given to him. If you do not get yours please notify us. Another thing is that you notify the Editor if you change your postoffice address. One member changed his address six times last year and today writes that he has had no Journals for six months. No wonder. I have had no notice that he had moved at all and he has been at his present location four months.

Please bear these matters in mind.

IS THE FAMILY DOCTOR PASSING?

In a letter recently received, a correspondent said: "I hope that the general practitioner is not doomed, although, sometimes, it looks as though his days were numbered, because of specialism."

There is a lot of calamity talk about the passing of the family physician. It strikes us that the family physician is less of an institution than formerly, not because there is less need of him (he is needed just as much) but because the material out of which they used to make family doctors is no longer available or available only in small supplies. Students in medical colleges are spoiled for family physicians and, to some extent, even for general practitioners. We have made a fetish of "scientific" work. We have stressed the laboratory investigation of patients too much and have neglected their clinical study, the bedside observations which enabled men like Hippocrates, Sydenham, Loomis, Austin Flint, even Osler to become great. We say, even Osler because, in some respects, Osler, too, was overly influenced by laboratory tests and suffered from an excessively critical attitude. For that reason, he denied so much. Still, it must be granted that the positive in him overbalanced the negative and we would by no means detract from his just claim to greatness as a clinician.

If more of our young men could feel the "call," the impulse, the urge to settle down as practitioners of medicine, to care for and heal sick people as individuals rather than as cases, the family physician, the general practitioner, would soon be restored to his rightful, important position. The confidence of the public must be earned. It can not be claimed without being merited. How many of the men in middle life

or in early middle life (say, of those who are ten years out of college) do you know whom you would consider as fit to be "family doctors" of the kind that Ian MacLaren has depicted so beautifully? There are mighty few. They don't seem to grow them that way any more. And, yet, how much good those men did accomplish! They may not have treated their "cases" quite according to Hoyle, but they treated their sick people and they benefited the sick souls of the latter.

As Nascher says, human nature has not changed in the last forty years. Then why, in the name of all that is reasonable, can human nature not be served as well as it was forty years ago, plus the advantages of the progress made—providing that we have men who can give the service that is needed? —Am. J. of Clin. Med., March 1923.

SAN FRANCISCO MEETING OF THE A. M. A.

There will doubtless be a number of West Virginia men attend this meeting. The Ohio Medical Association is planning a special train to be assembled in Chicago to leave there at 11:30 P. M. June 16th. It will arrive in San Francisco June 24th, at 9 P. M.

The proposed trip as outlined is one promising a very delightful prospect.

We are invited to join them. You will find a letter from Don K. Martin, Executive Secretary, Physicians Bldg., 131 E. State Street, Columbus, Ohio, to Dr. Ashworth in the Announcements and Communications. Also under the news columns some further information.

It would be advisable to write for reservations, etc., as soon as possible.

COUNTY SOCIETY REPORTS

To the Appropriation, Taxation and Finance Committees:

There has been a cleverly but misguided sentimental propaganda for national public obstetrical instruction campaign under the tenets and provisions of the Shepherd-Towner law.

In the end it means approval and support of a costly Federal Bureau, with the widening of the spirit of PATERNALISM, now easily the foremost curse of this uneasy and disturbed country. It means, too, the multiplying of the number of snooping Federal officials, already like the plague of locusts in the day of the hard-hearted Pharoah.

If it is necessary for something to be done for the MATERNITY in West Virginia, it should be done as a state FUNCTION and the present health officials should administer the work. It can and will be done better and at much less cost from Charleston than from Washington. Above all, a careful consideration should be given every underlying question of NATIONALIZING every petty detail of government.

It is fallacy to think that matching appropriations of the national government is a gain. It is more like taking a narcotic, since the DOSE always gets larger and larger. If your body sees cause to be urged into matching this appropriation for the benefit of the BRIGADE of red cross lame-DUCKS, who see the positions for which it pro-

vides, with no thought of the expense that will be heaped upon the community for the white-collar service they perform, then the SUPERVISION of the public schools is scheduled under the new SHEPPARD-STERLING bill. And whereas the further surrender of STATE RIGHTS is hereby protested:

THEREFORE BE IT RESOLVED: That the LOGAN MEDICAL SOCIETY hereby protests the appropriation of any funds for the matching of national appropriations under the provisions of the SHEPHERD - TOWNER, SHEPHERD - STERLING, or any other bill by Shepherd or any other PATERNALISTIC propagandist.

This the 20th day of March 1923.

J. E. McDONALD, Secy.

The Marshall County Medical Society at its regular monthly meeting on February 20th, 1923, among other business matters states the following and adopted the following resolution unanimously: That we point with pride to the record of the State Medical Association and the part played by the medical profession in West Virginia by its members through its Component Societies and to its record in advocating and having put on our statute book all the good health laws of our state. The interest that the profession has always taken in the prevention of disease is a matter of public knowledge and our record in the World War in the planning of our base hospitals and in caring for the sick at home and abroad is a matter of just pride to us. We appreciate fully that the government in the World War did not recognize or counsel any other so-called medical cults but the regular physicians. We believe that the public will now have to look to us about health matters as it has in the past, and

Whereas certain bills are now pending in the Legislature proposing to create by legislative enactment a special Board of Chiropractic Examiners for West Virginia, and

Whereas it is the opinion of the members of the Marshall County Medical Society that such bills if enacted would be a distinct detriment to the public welfare in our community and in our State,

Therefore be it resolved, That the Marshall County Medical Society is opposed to such enactment, and be it

Further resolved, That copies of this resolution be sent by the Secretary to Senator George N. Yoho, of Cameron, and Senator Thos. P. Hill, of Middlebourne; Hon. E. F. Moore and George W. Burns, the delegates from this county; Hon. M. Z. White, a former resident of this county; Septimus Hall, of Wetzel County; the West Virginia Medical Journal; W. T. Henshaw, State Health Commissioner; and to the Chairman of the Public Policy and Legislative Committees.

ROBERT A. ASHWORTH, Sec.
W. P. BARLOW, President.

NOTE: May I humbly remind you that the forty-five members of our Society are the physicians of practically all of 58,294 citizens of Marshall and Wetzel Counties and we feel that they would like for their State Senators and Members of the House of Delegates to vote

against the Chiropractic Bill so as to protect their interests in public health.

Sincerely yours,
ROBT. A. ASHWORTH.

Bluefield, W. Va.,
Feb. 21st, 1923.

The Mercer County Medical Society met at 8:15 P. M. and held its regular meeting in the assembly room of the chamber of commerce. The only one present on the program was Dr. Sam Holroyd who gave us a very interesting talk on "Why we should have a medical school in West Virginia." This was discussed by Drs. Hare, W. H. St. Clair and Steele and closed by Dr. Holroyd.

The secretary coming in late the minutes of the previous meeting was now read and adopted.

The motion made at the November, 1922, meeting, that the annual dues be raised from six dollars to ten dollars was made again by Dr. J. R. Vermillion and seconded by Dr. Hare. This carried by a unanimous vote of the doctors present.

Drs. Hare and Vass were appointed by the President, Dr. Bird, to audit the secretary and treasurer's books and report at the next regular meeting.

Censors Holroyd and Vermillion reporting favorably on the application of Dr. G. C. Rhudy of Bluefield his name was again placed before the society in the regular manner and unanimously elected a member.

The following bills were allowed: Kane Printing Co., 1/15/23, post cards, $3.75; Kane Printing Co., 2/19/23, 75 post cards, $4.00; The Foland Print Co., 1/20/23, 75 postals, $4.50.

Dr. Littlejohn, the Bluefield City Health Officer, being present, was called upon for a few remarks and in his speech he asked the Bluefield physicians to make any suggestions to him they felt like would improve the sanitary conditions in the city. He said he did not expect to treat cases but expected to protect the profession.

Dr. Littlejohn's application was received.

The programs were read off as follows: For March, Drs. Bailliff, Horton, Harlow, and Wallingford; For April, Drs. Morton, Carl Smith, M. B. Calwell, B. W. Steele and B. R. Tucker of Richmond, Va.; For May, Drs. J. R. Vermillion, E. F. Thompson, Porter and Blaydes; For June, Drs. J. F. Fox, M. S. Duling, E. E. Kirkwood, and Hare.

Paid dues for this year: Drs. J. H. Bird, J. R. Vermillion and E. W. Horton.

Eleven members and one visitor were present.

Adjourned at 10:00 p. m.

H. G. STEELE, Sec.

MARCH MEETING RALEIGH COUNTY MEDICAL SOCIETY

The Raleigh County Medical Society held its regular monthly meeting in the club room of the Hotel Beckley, Thursday night, March 1st, the newly-elected president, Dr. A. H. Grigg, presiding. The minutes of the previous meeting read and adopted. The secretary made a verbal report of the business transacted by the Executive Committee on arrangements for the state meeting, at a recent meeting.

Several bills were ordered approved and the secretary instructed to pay same. A letter was read from Dr. J. N. Simpson urging the society to assist in killing the bill now before the legislature which if passed gives the Chiropractors a separate board. The bill was explained to the society by Dr. K. M. Jarrell and on motion by Dr. J. A. Campbell the President was authorized to appoint two or three members to confer with our representative, Mr. George, and ask his co-operation in defeating the bill. Several matters were brought to the attention of the society which were referred to the proper committees for disposition. Motion made and approved that the society bear the expense of entertaining the visiting ladies who will visit Beckley during the state meeting.

The society was honored with the presence of several visitors, who read very interesting and instructive papers. The first paper was by Mrs. Bromburg of the Coal Valley Hospital, Montgomery, on "Nitrous Oxide Anesthesia." Dr. J. E. Cannaday of Charleston discussed Mrs. Bromburg's paper. The next paper was by Drs. J. E. Cannaday and E. B. Henson of Charleston on "Report of Some Bone and Joint Tumors," illustrated with lantern slides. Dr. W. E. Vest of Huntington was next with a paper on "The Present Status of Diabetes." The final paper of the evening was by Dr. A. A. Shawkey of Charleston on "Some Errors in the Care and Feeding of Infants and Young Children." Dr. Shawkey's paper was ably discussed by Dr. O. B. Lynch of Beckley. Dr. R. D. Roller of Charleston was present and was called on to discuss Dr. Vest's paper. Inasmuch as all of the papers with the exceptions of Drs. Cannaday and Henson will appear at some future time in the Journal, I will not attempt to give an outline of same. Suffice it to say that each paper presented, each discussion, showed evidence of close study, were interesting and instructive. After the meeting adjourned sandwiches and hot coffee were served.

The following were present: Dr. Hodges of Kilsythe, Dr. Wheeler of Beckley, Dr. R. D. Roller, Dr. J. E. Cannaday, Dr. E. B. Henson and Dr. A. A. Shawkey of Charleston, Dr. W. E. Vest of Huntington and Mrs. Bromburg of Montgomery were our visitors; Drs. T. F. Garrett, F. S. Richmond, J. H. McCullouch, W. W. Hume, A. U. Tieche, E. S. Dupuy, M. C. Banks, J. E. Coleman, B. F. Puckett, Fred Stansbury, D. B. Jarrell, J. H. Hoskins, W. H. Cunningham, B. B. Richmond, O. B. Lynch, C. S. Smith, K. M. Jarrell, W. C. Mays, U. G. Cook, J. A. Campbell, Robert Wriston, A. H. Grigg and B. B. Wheeler.

Beckley, W. Va.,
March 3rd, 1923.

Dr. W. T. Henshaw,
Charleston, W. Va.

Dear. Dr. Henshaw:

Dr. K. M. Jarrell delivered to me the bill you sent for our society to approve—and I am delighted to inform you that at a meeting of our society held March 1st, by a unanimous vote I was instructed to write advising you that we approved Senate Bill 359, House Bill 556, and disapproved Senate Bill 145, House

Bill 221 and House Bill 25 and Senate Bill 66.

A motion was made and unanimously adopted that the President appoint three members to confer with our representatives towards having the above bills properly acted upon.

You may count on our society to co-operate with you at all times and it is our sincere wish that the Chiropractic bill will be defeated. If there is anything else we can do to assist you, please feel at liberty to command us.

With best wishes, I am,

Yours very truly,
CHAS. S. SMITH, Secy.
Raleigh Co. Medical Society.

STATE AND GENERAL NEWS

MASHALL COUNTY NEWS

DR. ROBERT A. ASHWORTH, Reporter

Dr. Everett Robert, Wheeling—"Pyelitis."

Dr. O. F. Covert—"Diagnosis and Treatment of Diseases of the Stomach from the General Practitioner's Standpoint."

Dr. Roberts, a former Moundsville boy, a graduate of Hopkins and an interne under Hugh Young, gave us a most excellent paper on his chosen text, sticking close to his subject and stopping at all points of scientific interest to the medical profession from Dan to Beer-sheba. The paper was discussed by Drs. Streibich and Ashworth.

Dr. Covert gave us an unusually interesting and practical paper on a condition which the average physician has to treat daily. His classification and treatment of stomach diseases covered all conditions from the "slightest indigestion" to the more grave conditions of ulcer and cancer. His paper was ably discussed by Drs. L. H. McCuskey, C. S. Fortney, and W. P. Bonar.

President Barlow reported a case in which both kidneys were enlarged to five or six times the normal size. The Doctor is an interesting speaker. This case was interesting and profitable to us.

On motion of Dr. Streibich a resolution was passed condemning present bill to license Chiropractors and that a copy of resolutions should be sent to our State Senators, Members of the House of Delegates from this County and Wetzel County, and to the Hon. M. Z. White, a former resident of this County.

Pediatric Program for March 13th

Dr. C. L. Holland, Fairmont—"Recurrent Vomiting in Children."

Dr. J. A. Streibich—"The Care and Feeding of the Normal Infant."

Dr. H. P. Linsz, of Wheeling, Mrs. Nielson, Public Health Nurse of McMechen, Miss Cherry, the Marshall County Tuberculosis Nurse, and twelve nurses from the Reynolds Memorial Hospital were our guests. Dr. C. S. Fortney, of Hundred, one of our most faithful members, was present.

Our members fully appreciated Dr. Holland's presence and paper and our Society recognizes in him a leader in his specialty, "The Diseases of Children."

Dr. Streibich's paper was well read, well written and thoroughly enjoyed by all present.

Dr. J. C. Peck has returned from Florida. Dr. Will F. Crow, of Glen

Easton, is still sojourning in the Sunny South.

Dr. Joseph A. Porter has moved from Littleton to Silver Hill.

Drs. Charles G. Morgan and W. P. Bonar were elected as members of the Board of Education of Moundsville. Drs. J. J. Duffy and O. P. Wilson are the "hold-overs" on the Board. This gives the Medical Fraternity four of the eight members of our School Board.

Our Society has been negligent in reporting Dr. Morgan's moose hunt in Canada last fall and acknowledging the feast of moose steak he gave the individual members on his return. The Doctor thinks the public does not take him seriously enough. The other day as he walked down the aisle to make a "serious political speech," as he termed it, some one hollowed out, "Doc, sing Liza Jane."

OHIO COUNTY NEWS NOTES

HARRY M. HALL, Reporter

Dr. Bloss has written his opinion of we reporters in last month's Journal. It is a two-edged sword. We are missed, and we are admonished. Personally we sent ours in too late. As a physician I admit frankly I get weary of making this excuse about things. It is the medical profession's besetting sin—"Too late—too busy," and the last couplet is held as the cause of the first. Fifty percent of the times it is given it is merely another name for inertia. The Journal is issued sporadically—doubtless due to this very reason. Really, though, we at the present, need more news about ourselves, and the notes we have read of other reporters together with the casual meeting of the men recorded about at State Meetings has served to make us better acquainted with them. Everywhere you hear that West Virginia is a victim of sectionalism. That one end of the State is inclined to overlook the claims of the other. That the Panhandle is snubbed by the Southern end, and vice versa, in politics, religion and everything else. Acquaintance will make it not a fact in reference to the Medical Profession.

On account of the heavy work thrown on the profession here, as elsewhere, our meetings have been reduced in number. Since the last issue of the Journal we have had two meetings, one being featured by a thorough painstaking paper by Dr. Hupp on Osteo-Myelitis. Dr. Frank has devoted quite a little study to this subject, and had compiled quite a mass of facts together with his own views. He has seen quite a little of the disease in his past years and has his own views as to its progress. Osteo-Myelitis has become an important subject in this locality in the last year. Just lately its appearance in Dr. Fulton's own family and the Gethsemane the Doctor went through in deciding on a heroic radical operation on one of his very own added intensity to the subject. Dr. Hupp was one of the consultants in this case, and the X-Ray also aided considerably. The happy outcome of Dr. Fulton's daughter in this ordeal is eloquent of what quick decision and heroic surgery means in Osteo-Myelitis.

We also at the next meeting had Dr. Kimball of Lakeside Hospital, Cleveland, on the subject of "Goi-

tre — Prophylaxis among school girls and boys." In all seriousness it would be well to have him at the State Meeting. In the limited space here the details cannot be given but it is important to know what he has to say. Several years close observation in the Akron schools has made him of the opinion that it can be easily prevented by the administration of small doses of iodine in any form you may care to give it at the age of puberty or thereabout. He will also give you an account of the opposition of the medical profession to the plan at the beginning. Switzerland has taken up this teaching with admirable results. His paper here caused mingled reactions and some brought up "socialized" medicine. You owe it to your community to hear him—or rather he should come to the State Meeting where we all could have an opportunity to discuss it irrespective of how we feel as to giving school children collectively any form of medicine.

The opponents here have some room for argument and it is a nice subject for bringing out a good healthy discussion in which Doctors McDonald, Maxwell, Anderson, Butt and others could have quite an opportunity. As the hour was late when the discussion started a motion to leave the "socialistic" and paternalism" sides out of it passed and the society kept strictly to the medical side.

Next we had Dr. John of Cleveland on "Insulin." It is rarely that a Medical Society has a chance to hear one of the early investigators on a subject reveal in a capable easy way the intricacies and complexities of a new phase. Dr. John worked for some months under the seal of secrecy and his results are of course absolutely new and reliable. A large attendance was on hand and the lecture was illustrated with charts and slides by the lantern method. The only criticism was the one we could make with nearly every lecturer we ever saw who had lantern slides. Especially does the criticism apply to skin men, and that is they have too many slides for a mixed audience. It isn't that men object to the large number, it is just that at a certain point the brain fags and your perceptions are fatigued. This is evidenced by the restlessness of the audience. In Dr. John's case the slides were new and were quite scientific, but it was a rare treat and some of the men persuaded him to stay over and give us a second talk on Saturday afternoon. Within a couple of hours of knowing nothing of INSULIN we came out with a very complete understanding of its history; its composition; its pharmacology; its untoward action; and its limitations.

Last Friday Dr. Thos. Sprunt of Baltimore gave a lecture on the "Endocrines." As you all know he is associated with Dr. Barker in Baltimore. The Doctor bears all the earmarks of a scholar, and talks in a clear, precise, finished manner. The attendance was large—a great many were attracted by the probability of startling news on the remaking of man. They were doomed to disappointment. The Doctor was ultra-conservative and with the exception of Insulin, about which we heard the week before, held out very little that was new. His lecture was more of an exposition of

caution and reserve than of new fields and thresholds.

While it is not a reporter's business to digress into the realms of fiction he does it to the extent of predicting a wave of "Endocrine" literature. In the leading best sellers of the hour "Black Oxen" by Gertrude Atherton, the author goes Dr. Barker and Dr. Sprunt a few better by having a surgeon in Vienna use graduated X-Ray on the leading character, over the pelvic region and re-organized the ovaries with a new board of directors. Result, a woman of 62 caused a lot of damage to prospective investors who took her stock to be 27. Result involuntary bankruptcies. Robert Hichens has another book "December Love" where a woman of 70 performs like a woman of 25. So you see the novelists are BRIGLANDING (J. A. M. A.) it if the doctors are not.

The Health Officer of Wheeling is being sued for $25,000 by a man whose arrest he caused under the Venereal Laws. You are all invited to watch the progress of this case with all your spare attention. You are likewise appraised of the fact that Dr. Schwin was paid in full his award of $3,600 for the fees in the Habig case. This case was stubbornly fought, and arose over the correct fee for saving a man's life after he has had about fourteen separate operations following gunshot wounds penetrating the bowel and mesenteric vessels. The confusing part was the failure of the patient, his lawyers and a part of the public to grasp the idea that supreme skill and ripe judgment operating in a short space of time can save a life at the time of accident, and by dogged perseverance under discouraging circumstances bring it through after its surviving the original tragedy. A certain amount of sympathy goes out to all three of these agencies for their failure to grasp the situation because the public sort of believes all operations are very much alike, and in-so-much as physicians are daily saving lives with operations why was this an exception? As a matter of fact the procedure here in this case by Dr. Schwin reads like a case of "Aladdin and the Lamp," and if it had been rewarded by its actual worth, three times would have been none too much.

Dr. Cummins Edward White died at his home in Buckhannon, W. Va., on March 14th following an operation at Johns Hopkins Hospital for cancer of the stomach.

The deceased was a native of Lewis County, W. Va., and was fifty-four years of age. He was twice married, his second wife, formerly Mrs. Minnie Carper Phillips, of Buckhannon, surviving him.

In 1902 he located at Buckhannon for the practice of medicine, and became identified as one of the most prominent men of his profession, of this town and community.

He was a member of the Upshur County Medical Society, and of the Masonic and Odd Fellows fraternities; one of the former directors of the Peoples Bank, and an officer of the City Hospital. He served four years as Superintendent of the Weston Hospital for the Insane.

The funeral, which was largely attended, occurred on the afternoon of the 16th, and interment

was made in the Heavner Cemetery, the Masons being in charge of the last rites.

It is announced that the Children's Hospital in Huntington will soon be opened for patients.

This institution will occupy the residence of the late B. W. Foster, which has been leased from the Foster Foundation and been remodeled to meet the requirements of a hospital.

Accommodations will be provided for forty to forty-five patients as arranged at present.

As yet the staff has not been announced but it is planned to have one composed of the men especially interested and particularly competent in handling children's diseases.

The physicians of Huntington who have been spending vacations in Florida have returned. Dr. L. V. Guthrie has a very wonderful story of the landing of a hundred and fifty pound shark with an ordinary rod. He has photographs of his catch. Hawes says sharks are awfully solid and that it doesn't take a very "big looking" shark to weigh a hundred and fifty. Especially if he is hooked on "your" line. Further than this he refuses to commit himself.

Drs. C. T. Taylor and I. C. Hicks simply say they had a good time but will not tell any fish stories.

NEW SUPERINTENDENT OF NURSES IS APPOINTED

Mrs. E. M. McClarity, of Toronto, Canada, has been appointed superintendent of nursing at the Huntington General Hospital to take the place of Miss Edith M. Miller, of Charleston, who has been filling that capacity for a long period.

Miss McClarity is a graduate of the Morton hospital, at Taunton, Mass., and completed a post-graduate course at the Woman's hospital in New York City. She comes to Huntington highly recommended.

FACILITIES TO "O. S. M. A. SPECIAL TRAIN TO SAN FRANCISCO WILL INSURE EVERY COMFONT AND ENJOYMENT TO OHIO MEMBERS ATTENDING THE A. M. A. CONVENTION

An unusual opportunity to combine business with pleasure and make the trip to the annual meeting the American Medical Association which is to be held at San Francisco, June 25-29, a memorable as well as a profitable one, is presented through the completion of plans for the Ohio State Medical Association Special Train" to San Francisco, as announced by the special committee in charge of arrangements consisting of: Dr. S. J. Goodman, Columbus; Dr. Lester Taylor, Cleveland; and Dr. Kennon Dunham, Cincinnati.

This is your special train; it was arranged for by the committee for the convenience of yourself and family and friends. It will be an ultra-modern, fully equipped and thoroughly inspected all steel train, with observation cars, dining cars and all the other features which make for comfort and contentment while traveling.

The special train will be assembled at Chicago as a convenient starting point. No attempt will be made to operate special cars from Ohio cities to Chicago, unless a sufficiently large party signifies intention of going. In this event, special

cars will be arranged for through local medical societies. These cars will go to Chicago, where a transfer will be made to the solid Pullman train.

Enroute to San Francisco, the party will pass through many of America's foremost scenic regions. A generous number of stop-overs and side-trips have also been arranged. Among some of the points of interest to be visited on the way to Frisco are:

1. Denver and the Rocky Mountain Parks.
2. Colorado Springs and a trip by cog-rail to the summit of Pike's Peak.
3. Cross the Continental Divide at Tennessee Pass, 10,500 feet above sea level.
4. Mount of the Holy Cross, Yale and Harvard Peaks, etc.
5. Beautiful Eagle River Canyon.
6. Great power projects of the Colorado river.
7. Glenwood Springs, famed health resort and fruit center.
8. The Royal Gorge.
9. Castle and Sentinal Rocks.
10. Famous copper district of Utah.
11. Salt Lake City and the great Salt Lake.
12. Magnificent salten plains.
13. Los Angeles, Pasadena, Hollywood, Cawston's Ostrich Farm, Citrus Groves, Santa Catalina Islands, Long Beach, Spanish Missions, San Pedro, San Diego, Coronado, etc.
14. The great Redwood Trees of California.
15. Historic Santa Barbara Mission.
16. San Francisco.

On account of the multitude of special attractions offered on a trip to the Pacific coast, no attempt will be made to keep the party together for the journey back to Ohio. Each person may select the route that has the most appealing features.

As worked out, "All-Expense" plan is based upon the price at actual cost of the trip and covers every item of expense from Chicago to San Francisco; also railroad transportation from Ohio to Chicago and from San Francisco back home. This, however, does not include Pullman or chair car charges for the return trip nor hotel accommodations in San Francisco.

Not a single member of the party will be bothered with any of the details. All arrangements are in the hands of the railway and service bureau representative who will ac company the party.

The railway fare alone for each person making the trip from Cleveland will be $105.65; from Cincinnati, $101.35; from Toledo, $99.48; from Dayton, $101.40; from Canton, $107.20; from Akron, $105.65; from Youngstown, $109.40; from Zanesville, $107.40; and from Columbus, $104.00. These figures include the trip out and back with the final return limit of October 31.

All-Expense costs of the trip going out, including meals, hotel accommodations at stop-overs, all sight-seeing trips, and every detail during the eight days between Chicago and San Francisco, in addition to the transportation charges as given in the foregoing paragraph, include:

One in lower berth, $103.23; Two in lower (each), $86.42; One in

upper, $96.50; Two in Drawing Room (each) $129.60; Three in Drawing Room (each) $109.60; Four in Drawing Room (each), $99.60; Two in Compartment (each) $117.10; Three in Compartment (each), $101.27.

The railroad fare, if the return trip is made by the way of Portland, Seattle, Vancouver, St. Paul, or the Canadian Rockies, will be $18 additional.

The complete schedule of expenses from various Ohio cities, together with the Pullman fare charges returning will be published later.

BOOK NOTICES

Nursing and Education in the United States—Conducted under supervision of representative medical and nursing educators as follows:

Committee: C. E. A. Winslow, Dr. P. H., New Haven, Chairman; Josephine Goldmark, Secretary; Mary Beard, R. N., Boston; H. M. Biggs, M. D. New York; S. Lillian Clayton, R. N., Philadelphia; Lewis A. Conner, M. D., New York; David L. Edsall, M. D. Boston; Livingston Farrand, M. D., Washington, D. C.; Annie W. Goodrich, R. N., New York; L. Emmett Holt, M. D., New York; Julia C. Lathrop, Washington, D. C.; Mrs. John Lowman, Cleveland; M. Adelaide Nutting, R. N., New York; C. G. Parnall, M. D., Ann Arbour; Thomas W. Salmon, M. D., New York; Winford H. Smith, M. D., Baltimore; E. G. Stillman, M. D., New York; Lillian D. Wald, R. N. New York; W. H. Welch, M. D., Baltimore; Helen Wood, R. N., St. Louis.

Table of contents: Part "A": Functions of the Nurse: I, Public Health Nursing; II, Private Duty Nursing, The Subsidiary Nursing Group; III, In Institutions, The Graduate Staff, Instructors and Administrators. Part "B": Training of the Nurse; IV, The Hospital School of Nursing; V, The Training of the Subsidiary Nursing Group; VI, University Schools of Nursing; VII, Post Graduate Courses, Public Health Nursing Courses, Courses for Teachers and Administrators in Schools of Nursing, The Teaching Staff, Teachers' College and Its Influence on Nursing Education.

The MacMillan Company, publishers, New York. Price $2.00

Impotency, Sterility and Artificial Impregnation—By Frank P. Davis, Ph. B., M. D., Fellow American Medical Association, Member Medical Veterans of the World War; Ex-Secretary Oklahoma State Board of Medical Examiners; formerly Superintendent State Institution for Feeble-minded; author of "How to Collect a Doctor's Bill," "The Doctor's Book of Poems;" formerly Editor Davis Magazine of Medicine. Second edition, revised and enlarged. St. Louis, C. V. Mosby. Price $2.25.

Physiology and Biochemistry in Modern Medicine—By J. J. Macleod, M. B.; Professor of Physiology in the University of Toronto, Canada; formerly Professor of Physiology in the Western Reserve University, Cleveland, Ohio. Assisted by Roy G. Pearce, A. C. Redfield and N. B. Taylor, and by others. Fourth Edition. With 243 illustrations, including 9 plates in colors. St. Louis. C. V. Mosby Company, 1922. Price $11.

Diseases of Women—By Harry Sturgeon Crossen, M. D., F. A. C. S.; Clinical Professor of Gynecology, Washington University Medical School, and Gynecologist in Chief to the Barnes Hospital and the Washington University Dispensary; Gynecologist St. Luke's Hospital; Consulting Gynecologist to the Jewish Hospital, St. John's Hospital and the St. Louis Maternity Hospital; Fellow of the American Gynecological Society and of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons. Fifth edition, revised and enlarged. With nine hundred thirty-four engravings including one color plate. St. Louis. C. V. Mosby Company, 1922. Price $10.

Physical Diagnosis—By W. D. Rose, M. D.; Lecturer on Physical Diagnosis and Associate Professor of Medicine in the University of Arkansas; Visiting Physician Little Rock City Hospital, Baptist Hospital, and St. Vincent's Infirmary, Little Rock, Ark. Third edition. Three hundred nineteen illustrations. St. Louis. C. V. Mosby Company, 1922. Price $8.50.

The Elements of Scientific Psychology—By Knight Dunlap, Professor of Experimental Psychology in the Johns Hopkins University, Baltimore; author of "Mysticism, Freudianism, and Scientific Psychology," "Personal Beauty and Racial Betterment," etc. Illustrated. St. Louis. C. V. Mosby Company, 1922. Price $3.50.

An Introduction to the Practice of Preventive Medicine—By J. G. Fitzgerald, M. D., F. R. S. C.; Professor of Hygiene and Preventive Medicine and Director Connaught Antitoxin Laboratories, University of Toronto. Assisted by Peter Gillespie, M. Sc., C. E., M. E. I. C.; Professor of Applied Mechanics, University of Toronto, and H. M. Lancaster, B. A., Sc., Director of Division of Laboratories, Provincial Board of Health, Ontario, and Demonstrator in Sanitary Chemistry, Department of Hygiene and Preventive Medicine, University of Toronto; and chapters by Andrew Hunter, M. A. M., B., F. R. C. S., J. G. Cunningham, B. A., M. B., D. Ph., and R. M. Hutton, with appendix articles by various contributors. St. Louis. C. V. Mosby Company, 1922. Price $7.50.

Physical Exercises for Invalids and Convalescents—By Edward H. Ochsner, B. S., M. D., F. A. C. S.; President Illinois State Charities Commission; Attending Surgeon Augustana Hospital, Chicago. Second Edition. St. Louis. C. V. Mosby Company, 1922. Price .75.

I Believe in God and in Evolution—By William W. Keen, M. D.; Emeritus Professor of Surgery, Jefferson Medical College, Philadelphio. This volume is an enlargement of an address by Dr. Keen which was widely quoted by the press. The popular comment on it was so great and the author received so many urgent requests to put it in permanent form, that he elaborated on his theme and this brilliant book is the result. "To me and to many another believer in Evolution the Bible is the Book of Books. It is a precious manual of Religion but not a text-book of Science." This quotation from the author's preface gives the key-note of the volume. Dr. Keen's surgical

operations and experiments have enabled him to substantiate, almost incontrovertably, the facts of evolution. On the other hand, his personal faith in God and the Bible has remained steadfast and unaltered, because he has seen clearly the underlying harmony of science and the scriptures. The proofs which he sets forth so convincingly are so self-evident that no right thinking person can ignore them. The successive steps in Dr. Keen's argument show how undeniable is the truth of man's relationship with the lower animals, yet in the end how closely linked are the tenets of Christianity with those of Evolution. From another pen, this would be a remarkable work on the question of evolution but coming as it does from a man of Dr. Keen's standing, there is an added significance that would otherwise be lacking. He shows clearly the distinction between Darwinism and Evolution, and that they are wholly independent of each other. J. B. Lippincott, Philadelphia and London. Price $1.00.

Physics and Chemistry for Nurses—By A. R. Bliss, Jr., A. M., Phm.D., M. D.; Lecturer on Chemistry and Materia Medica, Grady Hospital Training School for Nurses, Atlanta; and A. H. Olive, A. M., Ph.Ch., Phm.D., Lecturer on Chemistry, Hillman Hospital Training School for Nurses, Birmingham. 70 Illustrations. Third edition thoroughly revised and rewritten and conforming to the requirements of the Standard Curriculum (1922) of the National League of Nursing Education. This well-known book has been entirely rewritten and in new form. So arranged that chemistry and physics can be separately taught within the twenty hours of The Standard Curriculum, or they can be taught together or more time devoted to each subject with this book as your text-book. In the consideration and discussion of scientific facts and theories, simplicity and lucidity have been the aim, but with a reasonable degree of fullness necessary to a serviceable conception of the subject. Suitable laboratory work of practical value is included. In this revision, the authors have had the advantage of the following collaborators: Frances W. White, R. N., Principal, Training School, N. Y. State Hospital, N. Y. C.; Alice L. Lake, B. S., R. N., Educational Director, Training School, University of Michigan, Ann Arbor; Ethel Johns, R. N., Assistant Professor, Department of Nursing, University of British Columbia; Stella Ackley, R. N., Educational Director, Training School, Milwaukee County Hospital, Wauwatosa, Wisc.; Sr. Mary Alma, Ph. G., R. N., Lecturer on Chemistry, Training School, Mercy Hospital, Canton; Adelaide M. Leffingwell, R. N., Instructress of Sciences, Training School, Lakeside Hospital, Cleveland. J. B. Lippincott Company. Price $2.50.

Essentials of Surgery—A Textbook of Surgery, for students and graduate nurses and for those interested in the care of the sick, by Archibald Leete McDonald, M. D., formerly in charge of Department of Anatomy, University of North Dakota; Lecturer on Surgery, Nurses Training School, St. Luke's Hospital, Duluth, Minnesota; Member Western Surgical Association. Forty-nine Illustrations. Second

Edition, revised. This book covers the general principles of surgical diseases and the pathological changes which result. Also, under separate headings, the more important surgical lesions of the body are considered. The matter is presented simply, and only general statements are made concerning: 1, Etiology, casual factors; 2, Pathology, local tissue changes produced, and general effects; 3, Natural course of the disease and spontaneous attempts to control the condition, also factors influencing the prognosis; 4, Indications for treatment, and the general principles which are to be considered. No attempt is made to discuss technical nursing methods, except special indications for their use. J. B. Lippincott Company, Philadelphia and London. Price $2.50.

Text Book of Pediatrics—Edited by Professor E. Feer, Director of University, Children's Clinic, Zurich. Translated and Edited by Julius Parker Sedgwich, B. S., M. D., Professor of Pediatrics, University of Minnesota Medical School, and Carl Ahrendt Scherer, M. D., F. A. C. P., Duluth, Minn. 262 Illustrations. First Edition in English. J. B. Lippincott Company, Philadelphia and London.

How We Resist Disease—An Introduction to Immunity (Lippincott's Nursing Manuals) — Jean Broadhurst, Ph.D., Assistant Professor of Biology, Teachers College, Columbia University. 138 Illustrations, 4 color plates. This book, designed as a brief introduction to the exceedingly technical and apparently limitless field of immunity, has been prepared with special reference to nurses and general college students whose programs, ordinarily afford opportunity for but a single brief course in bacteriology, the needs of medical students and those able to devote more time to the subject being already well met by the several excellent and comprehensive textbooks on bacteriology and immunology. The author's aim has been to put into clear and simple language the main principles of immunity, covering in a general way the most important preventive and curative practices. To attain this end briefly, without affording opportunity for a large number of attendant misconceptions, is no simple task, and much attention therefore has been given to the illustrations, not only their number, variety, and range, but their legends as well. It has thus been possible to present a few of the more difficult topics in two—sometimes three ways—the text, the illustration, and the description used with the illustration. In all cases every effort has been made to give enough detail to enable the student to picture the process or the phenomenon under discussion. The terminology has been made as non-technical as possible, many of the scientific terms being used parenthetically only. Contents: Acknowledgments, Preface, Bacteria and Their Effect Upon the Human Body, Active Immunity Passive Immunity, Toxins and Antitoxins, Agglutinins and Preciptins, Opsonins, White Corpuscles, Lysins, Vaccines, Anaphylaxis, Glossary, List of Infections and Casual Organisms, Advanced References on Immunity, Index. J. B. Lippincott, Philadelphia and London. Prcie $2.50.

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ABDOMINAL PREGNANCY WITH LIVING CHILD

Read Before West Virginia State Medical Association, Huntington, W. Va., May 17-19, 1922

By DR. J. E. RADER
Huntington

In the presentation of this paper, the author wishes to associate with the term "extra-uterine pregnancy" the terms abdominal pregnancy at or near term, and ectopic gestation in advanced cases. In going through the literature and gathering statistics for a paper of this character, we find this serious condition of pregnancy described under each and all of the three titles, therefore we assume them to describe one and the same condition.

Abdominal, or full term extra-uterine pregnancy is described by some authors, notably Kleinwacter, as both primary and secondary; most authors, however, claim that the primary form is very rare, and that a complete investigation always proves the fact that location of the placental attachment is always secondary.

Theoretically, primary abdominal pregnancy does sometimes occur, but in the great majority of cases the fertilized ovum was not originally implanted on any abdominal organ.

Since extra-uterine or abdominal pregnancy was recognized in about the eleventh century, it has been given a great deal of study and the etiology, pathology and symptomotology very well worked out. As to treatment, it is fair to say the modern surgical treatment of abdominal pregnancy was made possible on the soil of our sister State, old Kentucky. I have in my office an enlarged picture of the home of that pioneer in abdominal surgery, Ephriam McDowell, in which he performed the worlds' first ovariotomy, and the shaft which stands in Danville, Ky., to his memory bears the inscription, "The Father of Ovariotomy." And so he was,

but as my friend Dr. Stuart McGuire once said, "he was more than that. Just as Abraham was the father not of Isaac alone, but of a race, this great Kentuckian was the father of Gynecology." It will no doubt be interesting to those who have not already read it to quote the following brief original account of his operation performed in 1809:

"Having never seen so large a substance extracted nor heard of an attempt or success attending any operation such as this required, I gave the unhappy woman information of her dangerous condition. She appeared willing to undergo an experiment which I promised to perform if she would come to Danville (the town where I live), a distance of sixty miles. I made an incision, continuing the same nine inches in length, extending into the cavity of the abdomen, the parietes which were a great deal contused which we ascribed to the resting of the tumor on the horn of the saddle during her journey. The operation terminated in about twenty-five minutes. We closed the opening with the interrupted sutures, leaving out at the lower end of the incision the ligature which surrounded the fallopian tube. Between every two stitches we put a strip of adhesive plaster. In five days I visited her, and much to my astonishment I found her engaged in making up her bed. In twenty-five days she returned home as she came, in good health."

Dr. Howard A. Kelley[1], in a tabulative statement on Pages 458 and 459, Volume 2, of his Operative Gynecology, brings the statistics of "Abdominal or Extra-Uterine Pregnancy with Living Child" from 1809 to 1897, comprising seventy-seven cases.

Dr. Edward A. Ayers[2] continues them through 1897, and adds fourteen cases not included in Kelley's table.

Dr. J. Shelton Horsley[3], of Richmond, Va., in an article in Surgery, Gynecology and Obstetrics, December, 1913, pages 767 and 768, entitled "Abdominal or Extra-Uterine Pregnancy with Living Child," brings the literature on this subject down from 1897 to 1912, reporting forty-five cases and one overlooked in 1897, and adding to the list a case of his own operated on in 1911, making a grand total of one hundred and thirty-eight cases reported from Nov., 1809, to January, 1912.

In Kelley's table thirty-six mothers were saved. Of the total number of one hundred and four cases reported by Kelley and Ayers from 1809 to 1897, there were forty-nine maternal deaths. Of the forty-six cases tabulated by Dr. Horsley, there were eight maternal deaths. In three cases there is no report as regards the maternal results.

In the eighty years from 1809 to 1889 the maternal mortality was almost seventy-five percent, and in the following ten years thirty-two percent, showing that a very large percent of this mortality occurred before the era of antiseptic surgery. In the cases tabulated by Kelly, only two of the first twenty mothers were saved. In the forty-six cases tabulated by Dr. Horsley from 1897 to 1912 there were only eight deaths, a mortality of about seventeen and one half percent.

With your permission I will indulge a little further on your time by adding a case of my own to the list of "Abdominal Pregnancy with

Living Child." The following is a history of the case: Mrs. W., age thirty years, from Boyd county, Ky., referred by Doctors Bond, of Catlettsburg, who made the diagnosis and had the case under observation for two months. Family history of no importance. Patient had been married for eight years, menstruation regular, no history of any miscarriages, had given birth to two children, both living. With this pregnancy she had had slight bleeding once or twice, at about the first and second monthhs. Could get no history of a previous rupture. Patient supposed she was pregnant in the regular way, but the cramp-like pains caused her to call her physician, at about the eighth month, who diagnosed "Abdominal Pregnancy." When I was called in consultation about two weeks later, patient was up going about the house, but the movements of the child were very energetic, causing her quite a bit of pain. I advised immediate operation but patient would not consent. About ten days later when patient finally consented to operation, and all arrangements had been made to transfer her to hospital, Dr. Bond called me on long distance phone and informed me that patient was in what appeared to be labor, and did not think it advisable to attempt to move her. I accordingly made the necessary preparations as quickly as possible for operating in the home. The operation was performed September 27th, 1916. A long incision was made slightly to the right of median line. Child found to be still enclosed in an unruptured sack. After packing away intestines the sack was opened at thinnest point, cord clamped and living crying child handed to nurse, three minutes from beginning skin incision.

Child full term, perfectly formed, male and weighing eight pounds. Placental attachment so extensive and wide spread over intestines and pelvic organs that it was deemed inadvisable to attempt removal in mass. A word of caution in the management of such cases may not be amiss. We should not attempt to remove placenta at the time of the operation from the fact that the patient will likely bleed to death on the table.

The total number of abdominal pregnancies (so far as we have been able to get the statistics) with living child from 1809 to the present time including my own is 160. Covering a period of 113 years. In the cases that I have reported there were only two maternal deaths, a fraction less than ten percent as compared with Kelley's table, only two percent of the first twenty mothers were saved, and of the first thirty there were five maternal recoveries. A large proportion of these deaths occurred before the era of aseptic surgery.

In order to make the literature accessible and bring it up to date, the following are the references arranged in bibliographic form of the cases from 1912 to 1922. In obtaining these statistics, I have spared no pains or expense. They were gotten from the Surgeon Generals office in Washington, from the American Institute of Medicine in New York, and from such other sources as they could be obtained.

Horsley, J. R., Abdominal pregnancy with living child. Surg. Gync. & Obst., 1913, XVII 58.—Age 27, colored, third pregnancy; first pregnancy resulted in miscar-

riage at 4 mos., about 9 years ago; next child was born dead at full term. Present pregnancy not suspected of being abnormal until onset of labor. Examination showed uterus empty and diagnosis of abdominal pregnancy made. Was admitted to hospital and operated on at 10 p. m. Abdominal incision. Child a boy, weighed 6 lbs., and had no deformity. The placenta and the sac had a distinct pedicle from the left broad ligament. Mother and child were in excellent condition when discharged from hospital 5 weeks later.

Calloway, I. M., Extra-uterine abdominal pregnancy (primary). N. Col. M. & S. J., 1912, LXIV 641.—Age 26, third pregnancy, had pains and nausea about two weeks before expected confinement and examination revealed the true condition; fetal heart heard and movements were freely observed. As she was in a good condition she was allowed to go until the next attack of pains. On opening the abdomen a very friable placental sac presented which ruptured on handling and a fully developed child was delivered; the sac was almost empty of amniotic fluid, the placenta was attached to back of both broad ligaments and posterior surface of uterus. No adhesions to any abdominal viscera. Mother and child both well.

Hood, N. L. Case of full-term living child removed by laparotomy in an extra-uterine pregnancy. Lancet, London, 1913, 1, 1662.—Age 28, had one previous pregnancy, child still-born at 8 mos. On admission to hospital a large tumor corresponding to a full-term pregnancy could be felt in the abdomen. The head was felt below the costal margin on the right side very distinctly and a softish tumor was felt in the position of the normal uterus. Per vagina the cervix uteri was found to be drawn very high up and could only just be reached; it was hard, not at all dilated and projecting in the middle line. Patient said she was having labor pains had felt the child move distinctly that morning. Operation in the evening. Child living, weighed 7½ lbs. The sac was between the layers of the right broad ligament and the placenta lying partly on its anterior wall and partly on the uterus. The cord ran deeply into the pelvis. The child. female, gave no trouble, but the whole head was moulded with a concavity on the left side where it had rested against the vertebral column. She is now three years old and apparently a normal child of that age in every respect. Mother is also in perfect health, but has to wear a belt to support the scar which shows a tendency towards ventral hernia.

Cragin, E. B., Full-term ectopic gestation with living child. Am. J. Obst. 1914, LXX 1019.—Negress; could obtain no symptoms usually associated with cases of advanced ectopic gestation. She supposed she was normally pregnant and having pain came to hospital for her confinement. On examination the fetal head was found in the right iliac fossa and fetal movements were distinctly felt through the abdominal wall. The cervix was long and admitted finger tips. Inability to make the head impinge upon the finger introduced into the cervical canal led to suspicion of ectopic gestation, verified by finding the uterus empty. Operation confirmed diagnosis. She had a

rather stormy convalescence, but left the hospital in good condition in 7 weeks. Baby at birth weighed 6 lbs. 7 oz. One side of face was considerably flattened from resting in the iliac fossa; left foot was badly turned in; right foot turned out. Was placed under orthopedic nonoperative treatment and after 5 months the legs and feet became perfectly straight.

Essen, Dorman, K. H. Extra-uterine pregnancy with living full-term child. Therap. d. Gegonwart, 1914, XVI, 360.—Age 30, 1-para-operated March 14 for above diagnosis. Child was deeply asphyxiated, but soon revived, 51 cm. No deformities; very little amniotic fluid; sac firmly adhered to transverse colon. Much hemorrhage which prolonged the operation for one hour. Mother and child perfectly well upon leaving hospital 6 weeks later.

Plancher. Extra-uterine pregnancy with living fetus. Bull, Loc.d Obst. et. Gyuse, 1912, XV, 904.—Age 26. Married 8 years, had never been pregnant. Last menses May 9, since which time she had irregular bloody discharges and periodical severe pains in epigastrium. The tumor which had developed was diagnosed as hematocele and laparotomy performed Oct. 12. On reaching the tumor and incising same amniotic fluid gushed forth and a foot of the child presented. The child was extracted along with the membranes; it weighed 900 grammes, was relatimely well developed and lived about one hour. Mother left hospital at the end of a month.

Boguel, A., Extra-uterine pregnancy operated at term with living child. Arch. e'Obst. et Gynec. 1912, II, 277.—Age 26, Nullipara, last menses Nov. 28. When she reached full term she was seized with symptoms of collapse which demanded immediate surgical intervention. The tube had ruptured and the child, female, was extracted by the feet, and at once cried lustily. Weight 2900 gms. Mother and child left hospital in one month.

Savage, T. C., Full-term extra-uterine gestation. Proc. Roy Loc. Med. Lond. 1911-12. V. Obst. & Gyn. Sect. 72.—Age 27, 1-para. Went to term without a mishap. On admission to hospital she had rhythmical abdominal contraction, fetal movements and fetal heart sounds heard. The operation revealed extra-uterine pregnancy. The child's head was situated in the left lumbo-iliac region. Mother had severe hemorrhage during operation. She made a good recovery. Baby fully developed male, weighed 4 lbs. 10 oz. at birth; had slight torticollis, due to pressure of the pelvic brim on the neck. Ten months later it weigher 22 lbs. and deformity was corrected. Mother in perfect health.

Paskiewicz, S. Case of Extra-uterine pregnancy at full-term. Zentrlbl.f. Gynak. 1912 XXXVI, 110.—Age 38, had normal pregnancies. The diagnosis presented no little difficulty as it was impossible to palpate the uterus isolated. She was examined by several physicians and each found the cervix open and labor in progress. During her pregnancy she had three severe hemorrhages, indicating separation of the fruit sac, in spite of which the fetus continued to develop. On admission to hospital the fetal heart sounds could be dis-

tinctly heard and had laparotomy been done then, a living child would probably been delivered. The child died from hunger, for it was so far developed that the placental nutrition was not sufficient to maintain its life. The fetus had developed in the tube or cornua. Mother died on the second day from peritonitis.

Beckmann, W. Full term extra-uterine pregnancy. Monatssche. f. Goburtsh. N. Gynak. 1914, XXL, 187.—Age 30, had six pregnancies, the last three years ago. This patient was admitted to hospital with intense pain in epigastrium, general condition very bad, facies sunken and poorly nourished. From the history, clinical and operative findings the case was one of full-term, secondary abdominal pregnancy, with living child, originating in a ruptured interstitial pregnancy. The child, female, measured 48 cm. and weighed 2550 gms. The child lived 4 weeks and then died from capillary bronchitis. The mother died on the 16th day from peritonitis.

Russian

Krasnopolski, N. G., Case of living fetus of extra-uterine pregnancy delivered at term. J. akushi. jensk. bolicz. St. Petersb. 1913 XXVIII, 225.

Maryamchik, N. P., Case of extra-uterine pregnancy in the 7th month with living fetus. Med. Obozr. Mosk., 1913, LXXX, 418.

Bibliography

H. Stubbe, Med. J. Australia 2: 570, Dec. 25, 1920. Full term extra-uterine gestation, operation September 20, 1920; mother and child living.

U. Newell, J. Missouri M. A. 17: 357, Sept. 1920. Full term extra-uterine pregnancy—operation by Dr. Henry Schwarz and U. Newell; baby and mother living.

E. C. Moore, Surg. Gynec. & Obst. 33:65, July, 1921. Patient operated within one week of term April 25, 1917. Baby and mother living.

Patient operated November 7, 1917, twelve days before estimated term. Mother and child living.

Patient operated and a large right ovarian sac was found with pedicle from the top and upper posterior surface of the right broad ligament. Mother had been delivered normally just previous to operation of normal child. The extra-uterine child weighed two ounces more than the intra-uterine child. Mother and child both living.

Operation Nov. 27, 1915—Full-term extra-uterine pregnancy, baby weighed 5 lbs. Mother and child living and well.

Dorman, F. A. Two cases of abdominal (ectopic) pregnancy operated upon near term with living children. Am. J. Obst. 1919, 89, 782.

Lee, W. C.—Advanced extra-uterine pregnancy with living child; primary laparotomy—Surg., Gynec. & Obst., 1917, 24, 317.

A. R. Rozar, J. A. M. A. 76, 239, Jan. 22, 1921. Operation full term extra-uterine pregnancy—Nov. 13, 1920. Mother and baby living and well.

Discussion

Dr. McClintic:

I am tied to the idea that in things of this sort we should especially emphasize the scientific side of medicine. I think the West Virginia Medical Association is certainly to be congratulated upon having a member who has gone to the trou-

ble of bringing up a paper of this sort so completely. I think that a paper of this kind should appear in the best scientific journals. I believe that it will put our Association on the map to have this paper published in some of the most widely read journals, and I think that Dr. Rader is to be congratulated upon the complete, consise and scientific explanation of his subject.

* * *

Dr. Hugh G. Nicholson, Charleston:

I have had exceedingly little experience in straight abdominal pregnancies, having operated upon only one case. The diagnosis was made before operation. The case was operated at four and one-half months, at which time we found the placental attachment beginning to separate, and the abdomen could not take care of the amount of blood that was being liberated. The placenta was attached to the right flank of the abdominal wall and the greater omentum. The child was living at the time of the operation, and the child and the placenta were removed en masse. The mother recovered.

* * *

Dr. W. S. Fulton, Wheeling:

I certainly enjoyed Dr. Rader's paper, and I heartily agree in congratulating the Doctor upon his work. It was a most unusual case, and an unusual condition, as the Doctor stated. I am sorry that the man who first saw the case is not here, because I think he shares in the treatment and final end results of this case along with Dr. Rader. We have a little legend in Wheeling that a case came into the hospital with a full term child, dead. The history could not be obtained, so as to come to definite conclusions, and a diagnosis of cyst was made, and the condition was not recognized until the abdomen was opened.

This is a most unusual and most remarkable case, and I am glad to have heard the report, and I hope that it will be published, because we must keep this unusual condition in mind. Dr. Rader showed that he is familiar with the physiologic change that is taking place, from the fact that he did not attempt to remove the placenta. It also shows that the Doctor was burning a little midnight oil, studying how to handle the great problem presented.

* * *

Dr. McMillan:

I want to thank the Doctor, too, and to congratulate him especially upon his technique and his splendid judgment in leaving the placenta and not jeopardizing the life of the mother by attempting to deliver it.

These cases, I believe, occur more frequently than they are recognized. I think that every general man ought to be quite up on the early recognition of such conditions. Year before last I reported to the American Association of Gynecologists and Obstetricians a case of abdominal pregnancy following hysterectomy. The woman was seventeen years of age, and had been operated upon in 1916 for double pyosalpinx. The uterus was of such character that a supravaginal hysterectomy was done, and a small section of the right tube and a section of the right ovary left intact. Drainage was introduced low down. She made a good recovery and left the hospital in about two weeks. About two years later, in 1918, she

came back to me, and as she entered the office her profile presented rather a funny appearance. I could hardly believe my eyes. Examination revealed, however, that she was pregnant, and almost full term. The history of beginning of pregnancy was very uncertain. Upon examination I found a big cervical fistula, which accounted for the pregnancy. She had one-half of the right tube, and had enough mucous membrane and enough ovary to produce fertilization. She was sent to one of the hospitals, and I did an abdominal operation about three days after my first examination. Prior to her admission she suffered with labor-like pains, cramps. Her family physician called me and we decided upon an abdominal operation. I made the incision to the left and somewhat low down. Welling up in the incision was the amniotic sac, ruptured. I took out a baby girl. In that case the placenta had already started to separate. The patient's condition was good, so I simply removed the placenta and packed off the intestines. The patient made an uneventful recovery.

I lost sight of the patient until about a year after, when she returned, saying she was in the same condition. Of course, the first pregnancy was reported to the local society. The case went along for about six months. I wanted her to go to the American Association of Gynecologists. She was very enthusiastic over the trip and undertook a lot of preparations in the way of buying clothes, etc., and walked up a hill toward home. The next morning about three o'clock she called her family physician, as she was suffering great pain in the abdomen. He called me. We opened the abdomen. We found it full of blood. The placental attachment was separated, and that time, I am sorry to say, we lost our patient. I made the trip and reported the case to the Chicago meeting.

I believe more of these cases occur than are recognized.

* * *

Dr. Silver:

I enjoyed the paper very much. I do not wish to discuss the paper itself, but would like to report one case very interesting to me, which occurred this year. Mrs. J., forty-two years of age, operated in 1919 for intestinal obstruction. Married woman, having had three children before, the children being sixteen, eighteen and twenty years of age. The incision at that time was long. I think the operation was repeated. A year later she came to me pregnant, at full term. The incision had opened up and the womb was lying out on the right side, practically outside the abdomen, just the skin covering it. I decided that we would better do a Caesarian section, and took her to the hospital, did a Caesarian section, and delivered a large baby. The incision was closed up, and mother and baby did well. In March of this year she came back to me apparently at full term again. In the meantime she had been to the hospital and been seen by a number of men, and X-rays had been taken, but the position of the child had not been made out. She called me about four o'clock one morning, and I went to her house and outlined the position of the child, which was lying in transverse position. I sent her to the hospital, thinking to do another Caesarian section. When I opened the abdomen I found the

child lying free in the abdomen. Unfortunately, it was dead. I did not know much about her history, but she told me that she had had some abdominal injury some months before. The uterus had ruptured, not along the line of the incision, but just beside it. I did a supravaginal hysterectomy, and the patient recovered.

RADIUM IN INOPERABLE CARCINOMA OF THE UTERUS

Read Before the West Virginia Medical Association, Huntington, May, 1922

By J. EDWARD HUBBARD, M. D.
Huntington, W. Va.

The future for the Radiologist in the treatment of Cancer is dependable upon the co-operation of the Physicist, Pathologist, Surgeon, Specialist, General Practioner, and the Patient. The Physicist for his intricate knowledge of the physics of Radio-active substances; the Pathologist as he is able to determine malignant tissue from benign and the type; the Surgeon and the Specialist for their co-operation in the use of Radium; the General Practitioner for his early recognition of the condition; and the patient for his co-operation and natural resistance.

The Radiologist believes that there are cases which can be cured by Radium alone, others by Radium and Surgery, and some treated with a palliative view and not a cure. The type of malignancy and the amount of involvement governs the Radiologist as the Surgeon. The ability of the Radiologist to grasp the difference between the tissue which Nature intends to repair and the tissue which is destructive, to give the amount of Radiation which will destroy the malignancy but will not materially interfere with or destroy the normal tissue or lessen the patient's natural or acquired immunity. To give the sufficient dosage of Radium to destroy the pathologic tissue and leave intact the normal is to be determined by the Radiologist. Anyone can use Radium but the success of the application depends on a full comprehension of what should be done to give a dosage which will not interfere with Nature's natural barriers. Unfortunately, there are no fixed rules even as there are no fixed rules for Surgery; each case is a pattern in itself and the cutting depends on the subject. It is necessary for the Radiologist to know the type of malignancy being treated, and take into consideration the patient's general condition, whether a massive dose or a smaller one is necessary and whether Surgery is to be used in connection with the Radium. I do not wish to go into details of the various methods of application, dosage and screenage, for each man using Radium works that out to his own satisfaction and I hope to the gratification of his patient.

Allow me to mention in a superficial way the action of Alpha, Beta, and Gamma rays taken collectively; there is produced within the cancer cells a degenerative change; in the arteriols and lymphatics a mild inflammatory reaction followed by obliteration, in conjunction with this a formation of fibrous tissue walling off the cancer, which is exactly what Nature is endeavoring to do. So it is co-operation with Nature's fighting forces which we want.

We have had Radium only a few years with its discovery in 1898 and its first application in Germany, and later by Dr. Abbe in New York. We can look back over hundreds of years to various agents which have been used to treat cancer, some of which have been claimed as cures, but today the ones which stand out are Surgery and the Radio-active substances; and while it is cure we are all looking for and what Humanity wants, it is conceded that early recognition gives the best chance and a very good one for a cure either through Radium, X-ray or Surgery.

However there are 10,000 women in the United States who die each year from carcinoma of the uterus. But it is not the curative value of Radium which I will consider but its use in the hopeless or inoperable cases that I wish especially to call your attention. The poor woman who is incurable is deserving of an effort, and to me these cases appeal; to tell a patient that they are hopeless is a trying task and to exile her to the land of Opium is a severe sentence—to place them in a constant state of Opium intoxication, unless necessary, should of course be the last resort. Statistics show that of the uterine cases examined about 35% or 40% are operable and of these there is a mortality of about 15%; 60% to 65% are inoperable so why should we neglect the majority? The terms inoperable cancer and Radium are almost synonomous to the laiety; in fact too much so for the reputation of Radium as the latter is given the blame for the death which was inevitable. It seems human nature to want to place the blame on the benefactor rather than on the villain. Some cases of cancer of the uterus, I believe, should have Radium and Surgery but for convenience and brevity I have only considered the cases in which Surgery would be inadvisable or impossible. One eminent Surgeon stated several months ago that there was nothing to be hoped for from Radium, but there are just as efficient and successful Surgeons who disagree with him. I can readily see the reason for the pessimistic view of the Surgeon who has been sorely disappointed in what he hoped so much, but the viewpoint of the Surgeon and the Radiologist are entirely different. As to whether the gentleman was right or wrong, time will tell; but in the inoperable cases, it is this class which the Surgeon has to admit he is helpless.

I believe we have often made mistakes in treating cases where the cure is impossible, of over-radiating for over-radiation will destroy the barriers of Nature, lower resistance, and destroy tissue which is of vital importance as well as that which is diseased, at the same time releases as free agents thousands of malignant cells to take up the fight, some from the stimulation will acquire renewed vigor and others will not have been interfered with but will have their former resistance and the result will be that the patient will be hurried over the precipice. So while Radium is being experimented with, still it has passed the primitive experimental stage; and I feel free to say that as a curative agent Radium, properly used, is successful in many cases; as a palliative one it has no equal.

It is necessary for the Radiologist to differentiate between the probable curable and incurable, and

in dealing with inoperable cases I refer especially to the incurable. For convenience I will divide these cases into three types.

First, Inoperable carcinoma at the menopause;

Second, Inoperable carcinoma because of age, or some other existent condition;

Third, Advanced malignancy and hopeless.

The first class is most frequently seen between 35 and 45 years of age. The first symptom of bleeding the patient attributes to the Menopause and is frequently prescribed for without examination and at times over the telephone; consequently there is a great loss of time. When the patient finally comes for an examination, there is an advanced malignancy; the cervix reveals on examination an extensive cauliflower or ulcerated condition; there is an involvement extending into the broad ligaments and some involvement of the vaginal wall, the uterus is fixed or partly so and the patient is bleeding profusely, gives a history of only having pain recently, that slight and at times there has been none at all. In these I have been using 50 mg in a brass capsule enclosed in 1 mm of rubber inserted into the cervical canal; in conjunction with this I usually apply Radium needles placed in the mass; or I use a Radium pack against the cervix packing the vagina with gauze, and having the patient catheterized every four hours if unable to void using a soft rubber catheter. The Radium is left in from 12 to 24 hours, following the removal the lower abdomen and inguinal glands are radiated; provided the patient has suffered very little reaction from the preceeding application—if she has, the treatment is stopped for 24 hours. In conjunction with this the area over the sacrum is also radiated. For external application 100 mgs is used with brass rubber dam 3/10 mm of aluminum filtration, this made into a pack surrounded with gauze at a distance of ½ inch. 3000 to 3500 mg hours being given. The treatment is not repeated again for eight or ten weeks. This application will check the bleeding and temporarliy arrest the growth.

Second, it is not infrequent to see cases in the aged, the amount of involvement being slight and the patient's age and general condition would hardly justify Surgery. This is the type which in a younger subject would respond to Radium alone, although some advise Surgery or Radium and Surgery. But in these cases, Surgery would not be advisable; however, Radium can be used making practically the same application as for the preceding, using a little smaller dosage at each sitting, allowing the patient to rest from 12 to 24 hours between applications, protecting the rectum by 2 mm of lead. It has been my experience that as a rule the result is very good; and even if it is only temporary and the condition be checked for only three or four years, there is the probability that she will die of some other cause than malignancy. On the other hand, the subject may be a younger woman with a small amount of involvement of the cervix but the general condition would not permit a major operation. These cases can be treated with a minimum amount of danger incident to the treatment, applying the Radium several times until the desired number of mg

hours have been given, dependent upon the patient's condition, the type of malignancy and the amount of involvement.

Third, advanced cases which upon examination reveals a general pelvic involvement, the patient may have profuse bleeding which is sporadic or which upon examination is followed by profuse bleeding. Patient is markedly emaciated, most of them having a discharge which is very offensive and nauseating to herself and family as well. Some of them claim they are unable to eat owing to this constant disagreeable odor; the pain is severe, radiating frequently to the thighs and in the rectum, the pain in the thighs being due probably to the involvement of the pelvic glands and the fibrous tissue formation. It is necessary for them to have morphine every few hours in order to be halfway comfortable. These are hopeless, but a conservative application of Radium, using 1500 to 2000 mg hours dividing the treatment between the internal vaginal and external applications will usually check the discharge and destroy the odor, very materially lessen the pain and some of them will not require any morphine for weeks, others will use much less. If bleeding is present it will generally be stopped in from 24 to 72 hours. Occasionally there is a reappearance of bleeding after a few days which promptly clears up again without any recurrence. While the treatment has probably not lengthened the patient's life, in the majority of cases however there are some who will derive an extension if she does not have a prolongation, it most assuredly has accomplished a great deal by making life more endurable, and in doing this it has given something to the patient nothing else could do.

Summary

1. Advanced carcinoma at menopause is benefitted by Radium;
2. Early carcinoma in the old can be treated by Radium without mortality;
3. Radium is especially useful in beginning Carcinoma of the middle-aged woman where operation is contra-indicated by some other condition;
4. Use of Radium as a palliative agent in hopeless cases offers a great deal.

The cases which offer the most in Radium treatment are the early cases, but we see more which are advanced. In treating advanced cases it should be the object primarily to stop discharge and check hemorrhage. Some cases will give surprising results and the patient will be restored to health and activity for several years.

Discussion

Dr. W. S. Fulton, Wheeling:

I was particularly interested in Dr. Hubbard's paper. At the meeting of the American Surgical Society in Washington a short time ago, when the points the Doctor brought out were emphasized.

Radium has found the place where it belongs, especially in cases of carcinoma of the uterus. Cases which are inoperable cannot only, in a certain percentage of the cases, be made operable, but others which cannot be made operable are relieved of some of the odor and the symptoms of which Dr. Hubbard spoke.

I wonder if I may digress just a little and say that I hope that radium will never become any cheaper? I hope that it will never be commercialized. Radium is one of the greatest aids in surgery. There is a moral side also. I can cite you a family of three women, sisters, under thirty-five years of age, with simple fibroids of the uterus. Radium was used and stopped their menstruation, and did the very thing that we have tried not to do, that is, do away with the ovaries. You know when we do a hysterectomy for fibroids we try to preserve the ovaries. There is also a criminal side. If radium become cheap, how easy to commit abortions.

Radium can not take the place of surgery in fibroids. It should have the same place in fibroid as in carcinoma of the uterus. The low mortality of surgery of the uterus in fibroid makes the operation practically safe, and you can preserve the ovaries and do your patient a greater benefit. I have had a number of cases, and I should think that even in operable cases of cancer of the cervix an application of radium, followed six weeks later by complete hysterectomy, is good practice. I think the Doctor undoubtedly brought that out, but I did not get it.

I was glad to hear Dr. Hubbard's paper, and I commend the stand he has taken. He has not been radical; he has been conservative; and it has been a great benefit to us.

* * *

Dr. W. E. Vest Huntington:

It has been a pleasure to watch Dr. Hubbard in his work, and it has been a pleasure to hear his paper today. I think he proves that there is a place for radium in cancer of the uterus. He certainly makes life more tolerable for these unfortunates.

A short time ago I had a case, a woman who I thought had sciatica. I treated her for that. She suddenly became unable to void, and sent for me in a hurry. I took her history and found that she had ceased to menstruate ten years before. She never had any discharge, and little pain. I attempted to catheterize, but could not, so I made an abdominal examination and found that she had a cancer of the uterus, involving the bladder walls. Now, she never had any discharge at all.

* * *

Dr. Hubbard, closing the discussion:

I agree with Dr. Fulton that radium should never be any cheaper, and I do not think it will be, owing to the tremendous amount of work in getting it out. Lots of men are using radium today and attempting to use it for everything. I do not think it is possible to do much with less than a hundred milligrams of radium. In giving massive treatment it is impossible, I believe, to get results without using at least a hundred milligrams.

I did not mention the classification of the cases which are inoperable at the time you examine them, but become operable. I saw a case not long ago, a woman who had profuse bleeding for a long time, and who was extremely weak and nervous. I gave her one treatment with radium. The bleeding was checked, the patient became better, and in six months she was operated upon. It will take time, of course, to tell whether or not she is cured.

In the treatment of fibroids, radium, of course, will not take the place of surgery. In treating a woman before she reaches the menopause it is important to use small doses. If you treat her with massive doses you will produce an artificial menopause.

Dr. Vest spoke of a case that had no discharge. I was, of course, speaking of the typical cases.

PREMATURE LABOR

Read at the Meeting of the West Virginia State Medical Association, Huntington, W. Va., May 18, 1922

By H. G. STEELE, M. D.
Bluefield, W. Va.

About March 20, 1922, a young man by the name of John H. Miles engaged your reader to take care of his wife in confinement. She was then something like six months pregnant. He was advised to bring a specimen of his wife's urine to my office soon, and then another specimen every two weeks, for examination. He was also instructed to bring his wife to the hospital to have a physical examination and a pelvimetry made.

Nothing more was heard from this patient until three o'clock p. m., March 24th, when a call came to come at once to Brush Fork, to see Mrs. Miles, that she seemed to be in labor and needed a doctor right away. They were consoled by being assured, as this was her first labor, that it would not come off for a few hours yet, that I was detained just now, but would come as soon as I could get away.

Another call came at five o'clock, and in a few minutes I had driven five miles, and was in the home of the young lady's parents. She was found in bed, suffering with severe labor pains, coming on about every three to five minutes. Her abdomen was palpatated, but the position or presentation of the fetus was not made out. The top of the fundus-uteri was from two to three fingers breadth above the umbilicus. Auscultating the uterus, through the abdominal wall, with the stethoscope, the placental souffle was heard at the fundus, but the fetal heart sounds were not detected.

The patient was married in August, 1921. The 15th day of the following September was the last day of her last menstrual period, making her a little over six months pregnant.

She was bathed off about the vagina with a lysol solution and bimanual examination made under the covers. Being only nineteen, she inexperienced, she squirmed and rolled about on the bed while this was being done. The vagina was fairly well dilated, while the dilatation of the cervix was complete.

For several minutes your reader was unable to make out just what was felt in the lower part of the pelvis. At first it was thought she was deformed, with an absence of the vagino-rectal partition, these two cavities being one, and the peculiar mass felt was thought to be fecal matter, feeling a lump of something here, a mass of soft substance there. a few of large well formed worms at another place. Then again it was too stiff to be worms and it didn't feel much unlike a well filled prolapsed umbilical cord. It was thoroughly lubricated and would readily slip out

of my fingers without much trouble. Withdrawing these two fingers and thumb from the vagina, the parents and husband, who were standing by, were told that I did not know what I was up against. My fingers and hand, where fluid had run out over them while making the examination, were dotted here and there with small particles of a light brownish substance, not unlike the appearance and consistency of curded milk. I said to myself, what can this be? It can't be a dead fetus, as the placental souffle was heard while auscultating the uterus just a few minutes before. It could not be a prolapsed cord, as it did not have the right consistency, nor did it pulsate, which would be the case if it was not compressed above. It was too stiff to be worms. It could not likely be an absence of the recto-vaginal wall without previous complaints from the patient or husband. On withdrawing the examining fingers from the vagina something the size of a large fishing worm, about three inches long, was drawn out and protruded from the vaginal orifice, being attached at the other end from within.

"Well, folks," I said, "we'll be compelled to expose this little lady some to see what is hanging out of her vagina." Pushing back the covers, as the reader does not approve of obstetrical patients being examined under cover any way, i. e., a vaginal examination of this nature should always be done under the supervision of the eyes, a fetal lifeless foot was seen protruding. Now what was to be done:—Wrap the patient up in blankets and take her to Bluefield, to the hospital, or try to relieve her of that condition there in a primitive, unsanitary, poorly furnished country home? Inquiring if there were a lady in that neighborhood who had previously given an anaesthetic, the father, a man of fifty-five years, said, "I have helped doctors in small operations and have given an anaesthetic a few times; I'll give her the ether if you want me to."

A pitcher of hot and a bucket of cold water were brought into the room, the patient turned crosswise on the bed, with her right foot resting on the legs of her husband, who sat in a chair near the foot of the bed, steadying her knee with his right hand and holding her hand in his left. The mother in the same position sitting in a chair near the head of the bed holding the patient's left foot in her lap and steadying her knee and holding her hand, the same as the son-in-law on the opposite side, with the father on the other side of the bed from me administering the ether.

A strong lysol solution was made in a wash bowl and placed on a chair near by. Two hemostats and a pair of scissors were dropped into the antiseptic solution, also plenty of cotton, to be used as sponges, and a pair of rubber gloves, which were put on after they soaked a few minutes in the solution. The perineum and surrounding area, legs, etc., were bathed off well with the lysol solution. A large steril towel was placed about the vagina. The patient now was anaesthatized and her hips resting in a Kelly pad, the preparation was as complete as the circumstances would permit.

After inserting my hand into the vagina I took hold of what was low down in the pelvis, and withdrew it, this was a lifeless, macerated

fetus of about four months, with its head flattened from side to side, as you often have seen a tin can flattened out after it had been run over by wagons on the road. This was attached to the placenta within by a very small cord. This was cut in two with scissors and the fetus allowed to drop into a slop jar at the end of the apron of the Kelly pad. Upon further examination this cord was found to extend up into the left side of the uterus along the external surface of an unruptured distended amniotic sac. The uterus had not, apparently, rereduced in size, and the amniotic sac was bulging well through the fully dilated cervix, which made it advisable to complete the delivery. When the sac was artificially ruptured a lot of sanguino-amniotic fluid gushed out. A breech was presenting and a six months male living cyanotic fetus was delivered.

The cord was clamped with two hemostats and cut between. With some little difficulty the placentae were detached from their bed in the fundus-uteri with the fingers of the operators' right hand, assisted by counter pressure from above through the abdominal wall with his left. The placenta attached to the small cord was very easily detached or not attached to the endometrium at all, while the large placenta was dissected loose with some difficulty. And when they were withdrawn the placenta of the first fetus was found to be from 7 to 8 cm. in diameter, and from 1 to 1½ cm. in thickness, of a grayish color and lifeless in appearance, while the other placenta was of normal size and color.

Keeping up artificial respiration and bathing the child in warm water it gasped for breath every now and again, but still its skin did not turn to normal color in spite of its heart, apparently, functioning properly as the pulsation could be distinctly felt at the tied off cord. It died that night.

FOCAL INFECTIONS AND SYSTEMIC DISEASE

AARON ARKIN, A.M., M.D., Ph.D.
Professor of Pathology and Bacteriology, West Virginia University School of Medicine

The causes of systemic or general diseases were unknown until a half century ago. In ancient times diseases were considered to be due to evil spirits entering the body from without. This view gave way to the Greek school of medicine which advanced the humoral theory of disease, about two thouhand years ago. Little real progress in the knowledge of disease was made until the epoch-making discoveries of Pasteur and Koch, who founded the science of bacteriology. With the development of culture media, for the cultivation of bacteria outside the body, came the isolation of one germ after another as the causes of infectious and contagious diseases. The germ theory of disease, now an established fact, teaches us that all transmissable or communicable or infectious diseases are caused by a "virus animatum," a living germ or microorganism, which must enter the body to cause disease. In other words, every case of infectious disease is a condition of parasitism in which the human body is the host and the germ the parasite. There is then a battle for the survival of

the fittest, and often the host kills the germs, and recovers; at other times the germs get the advantage and kill the host. The great discoveries of modern preventive and curative medicine have resulted from the developments in bacteriology and immunology.

Today most of the infectious diseases have been conquered by organized administrative efforts at betterment of living conditions, sanitation, immunization with vaccines and sera, isolation and quarantine disinfection, etc. The result has been that the average duration of human life has been lengthened from 22 years fifty years ago, to about 38 years at present. More people reach middle life than ever before, with the result that many weak individuals are being saved by preventive and curative medicine. Formerly only the physically fit survived, but today the unfit are also being saved by medical science. Perhaps this is one reason why the chronic diseases of middle life, such as organic heart disease, Bright's disease, arteriosclerosis, and cancer are increasing rather than decreasing in civilized countries.

In this address I wish to call attention to the important part played by focal infections, especially the teeth and tonsils, in the causation of many acute and chronic systemic diseases, such as valvular heart disease, Bright's disease, various forms of acute and chronic arthritis, arteriosclerosis, etc. The importance of some of these diseases can best be realized when I call your attention to the fact that organic heart disease led the list of causes of death in the United States last year, causing about 145,000 deaths. Next came tuberculosis with about 130,000, then pneumonia 125,000, Bright's disease 100,000, and cancer 80,000. In three of these (heart disease, tuberculosis and nephritis) focal infections play an important part.

The recent war demonstrated that 37% of our young men of military age were physically or mentally unfit for military duty. Of the defects which unfitted over one-third of the men examined 88% can be classified under six heads:

Diseases of bones and joints	26
Special senses	15
Cardio-vascular	13
Nervous and mental	10
Tuberculosis	9½
Defective physical development	8

Much of the physical disability begins in early life when it is preventable. Over 80% of school children have illnesses or defects, many curable. They are decayed teeth, enlarged tonsils and adenoids, middle ear infections, malnutrition, tuberculosis etc. Many of these cause the focal infections which are responsible for the high percent of physical and mental disability in later life. Most important are infections of the teeth (gingivitis, pyorrhœa alveolaris, apical granulomata) and tonsils.

A focal infection is a circumscribed area of infection with pathogenic bacteria. These primary foci are found in tissues communicating with surfaces, while secondary foci may develop from these by the passage of germs through the tissues, blood, or lymph vessels. The most important primary foci are infections of the teeth and gums, tonsils, adenoids, nasal sinuses (maxillary, frontal, mastoid), middle ear, lung cavities, chronic

bronchitis, the fallopian tube, prostrate gland, appendix, gall bladder, seminal vesicles, and suppurations of skin (boils, carbuncles, infected wounds) or mucous membranes.

William Black has stated that 25% of people have septic mouths at the age of 25 years, and at 45 years nearly 90%. Of course not all of these people develop systemic diseases, for the body normally possesses remarkable defenses against the spread of infection. There are bactericidal and antitoxic substances in the body fluids, and leukocytes which reach the infected area in great numbers and eat the bacteria alive. The presence of the bacteria stimulates the production of specific antibodies which destroy the bacteria, and increase resistance to the infection.

In certain individuals the germs, usually streptococcus, pneumococcus, staphylococcus or gonococcus, are carried by the blood stream or lymph vessels to other organs or tissues of the body, getting up systemic disease. Or the bacteria at the focus of infection may produce poisonous substances or toxins, which are carried to other parts of the body, producing harmful effects. Exhaustion, under-nourishment, age, the number and virulence of the germs, and local conditions at the focus of infection are all factors in producing acute and chronic systemic diseases. That a local tooth infection may cause disease was recognized by Dr. Benjamin Rush, one of the signers of the Declaration of Independence, when he reported a case of rheumatism which he cured by the extraction of a diseased tooth. He saw over one hundred years ago the relation of dental infection to disease.

It seems that germs growing in certain foci in the body, such as teeth and tonsils, may develop an elective affinity for certain tissues or organs of the body, so that when they are isolated and injected into animals they will still localize in certain parts of the body, as the joints, heart valves, appendix, muscles, kidney, etc. Often the germs will produce lesions in the organs or tissues from which they were obtained, when they are injected into experimental animals.

These pathogenic bacteria must find a focus of diseased tissue to remain in the oral cavity for any length of time. Otherwise foreign bacteria are promptly removed by mechanical flushing of the mucous surfaces. Bacteria introduced into the nose and mouth do not colonize and grow there indefinitely. The normal surfaces of the upper air passages are unfavorable to foreign bacteria, pathogenic or non-pathogenic. They persist only in foci of diseased tissue. In these focal infections they multiply, and are discharged either into the blood stream and lymphatics; or as in germ carriers, into the secretions of the mouth and nose, spreading the disease to others (diphtheria, meningitis, pneumonia, hemolytic streptococcus infections). Foci of diseased tissue in tonsils, adenoids, nasal passages, gums, or at the roots of teeth are the chief breeding places for disease-producing bacteria found in the mouth. Normally the mouth contains non-pathogenic bacteria (non-hemolytic streptococci, gram-negative cocci, diphtheroids, etc.). The presence of others indicates a focus of dis-

eased tissue, an infectious disease, or accidental and temporary introduction of disease-producing bacteria.

Diseases Due to Oral Sepsis

Diseases of the blood:

One of the most common effects of oral infection is anaemia. This disease is characterized by a reduction in the number of red blood cells, or the amount of coloring matter or hemoglobin. There may be increased blood destruction or decreased blood formation. Striking results are often obtained by removal of oral infections in these cases. The blood picture returns to normal, the patient's resistance is increased, the weakness and pallor disappear. Some clinicians believe that infections of the teeth and tonsils may be responsible for primary or pernicious anaemia. It is possible that an infectious agent, at present unknown, enters the body in this way. Removal of mouth infections, especially in teeth and tonsils, often causes improvement in the condition of the patient.

Diseases of the heart and blood vessels:

One of the most important diseases of the circulatory system is infectious endocarditis or valvular disease. It is always a secondary infection from some primary focus in the tonsils, adenoids, etc. In children the usual course of events is that well known tetrad, tonsillitis, rheumatic arthritis, endocarditis, and chorea. The endocarditis results often in chronic valvular disease. In adults infectious endocarditis is often caused by streptococcus viridans following tonsillitis or peri-apical granuloma. This type is usually fatal. In other cases the hemolytic streptococcus or pneumococcus are found. Pericarditis or myocarditis may also follow tooth infection. In other cases cardiac irregularities or arrhythmias may follow pyorrhœa alveolaris or peri-apical granuloma. Removal of the infection often causes disappearance of the symtoms.

Arteriosclerosis and hypertension or high blood pressure are undoubtedly aggravated by focal infections, perhaps even caused by them. In practically all such cases post-mortem examinations will reveal a septic rheumatic process, or focal infection with the streptococcus. Dr. Ophuls has recently found in a series of 500 necropsies that in those cases in which all history or signs of previous infection were absent chronic arterial disease was almost entirely absent, but appeared early and frequently in the group with chronic rheumatic (septic) conditions. Not only did the septic group include nearly all cases of chronic arterial disease, but also all cases of hypertension and of nephritis in which there was a sufficient history.

Arterial sclerosis and high blood pressure, then, are due in most cases to focal septic infections with streptococcus, or the action of some toxic bacterial substance, which may cause either or both of these conditions. It is therefore important to discover the focal infection as early in life as possible and remove it. After the infection has existed for some time even its removal may not stop the progress of the cardiovascular disease.

Diseases of the kidneys:

The view that the various types of degenerative, inflammatory and arterosclerotic kidney disease are

due to infection is rapidly gaining support. Careful studies of large groups of cases indicate the importance of focal infection, often streptococcus, as a cause of the disease. In childhood nephritis usually follows scarlet fever, tonsillitis, erysipelas, endocarditis, rheumatic fever or chorea, in all of which the streptococcus plays an important part. In adults it often follows tooth infection. The removal of recognized foci of infection as early as possible would do much to reduce the number of cases of nephritis. After the foci have been present for years, with secondary foci of infection in the kidneys, the removal of the primary focus may be of little value.

Diseases of the gastro-intestinal tract:

People with pyorrhœa alveolaris or peri-apical granuloma frequently complain of digestive disorders, due either to bacterial contamination of the food, insufficient mastication of the food, or nervous disorders. Removal of the infection is often followed by disappearance of the symptoms.

That ulcers of the stomach or intestine may be due to bacteria carried by the blood from infected teeth or tonsils is not unlikely. In these ulcers steptococci resembling those seen in periodontal abscesses or infected tonsils can usually be found.

Acute appendicitis may follow a focal infection in the teeth, tonsils, nasal sinuses and elsewhere. Here also the infection is hemotogenous. The bacteria locate in the appendix causing an acute or subacute inflammation. The same is true of some cases of gall bladder infections, or cholecystitis, due to streptococcus or other bacteria.

Diseases of bones and muscles:

A large percent of cases of infectious arthritis is due to streptococci from infected teeth or tonsils. The germs are transported by the blood to the joints, and acute or chronic arthritis follows. Hypertrophic osteoarthritis or arthritis deformans is most often due to infected teeth, tonsils, or genito-urinary tract. In these cases streptococci, etc., can be demonstrated in the joints as well as the primary focus. Osteomyelitis may also occur. This disease often follows an injury, after which emboli of germs localize in the weakened area producing bone destruction. Phemister has recently reported 19 cases of hematogenous staphylococcus lesions following skin infections with this germ. Eight were cases of osteomyelitis, two of multiple renal abscesses, three of perniphritic abscess, etc. Hence boils, carbuncles and other staphylococcus skin lesions should be removed as early as possible. Localization is especially common in traumatized tissue, such as bones following injury or fracture. I reported in an article on Influenza in 1919 three cases of post-influenzal staphylococcus abscesses in the muscles. These followed staphylococcus lesions of the ear, bronchi and skin.

In childhood arthritis usually follows infection of tonsils and adenoids; in adults peri-apical infections of the teeth are the chief cause. The acute rheumatic fever is a streptococcus infection almost always following tonsillitis. Removal of focal infections will often be followed by rapid disappearance of the arthritis. Sometimes more

than one focal infection may exist. In the more chronic cases, such as arthritis deformans, the best that we can expect to do is to stop the progress of the disease. Vaccine therapy, a balanced diet, physical therapy, active and passive exercise, and surgery may be necessary in certain cases.

Cases of myositis or acute muscular rheumatism may clear up rapidly on removal of infected teeth or tonsils or other focus. In these cases streptococci localize in the muscles causing the pain and other symptoms. Erythema nodosum, characterized by skin lesions, may accompany arthritis, and is also a streptococcus infection from some focus.

Diseases of nervous system:

Oral sepsis may be the primary cause of a number of diseases of the nervous system, such as multiple neuritis, neuralgias of various kinds, and neurasthenia. These patients are often greatly benefited or completely cured by removal of infected teeth, or treatment of the pyorrhœa. In some cases of sciatica or even trigeminal neuralgia oral sepsis is the cause. Recurring iritis not of syphilitic origin is often due to a focal infection, the removal of which results in disappearance of the eye infection.

Diseases of metabolism:

In cases of diabetes, a disease characterized by disturbance of carbohydrate metabolism, of which there are said to be one-half million cases in the country, the tolerance for sugar may be increased after removal of oral infection. The condition of the mouth should always be studied. This disease could be controlled largely by avoiding overeating and obesity, especially by those people whose parents are diabetics. Proper diet and oral prophylaxis would greatly reduce the number of cases of this often serious disease.

Diseases of the thyroid gland, such as exophthalmic goitre, are often greatly benefited by removal of infected teeth or tonsils. The infection and toxaemia seem to stimulate the thyroid to excessive activity. Removal of any focal infections is an important part of the treatment of this disease.

Summary and Conclusions

I have called your attention to the importance of focal infections in the production of systemic diseases, with special reference to oral sepsis. Close cooperation between the physician and dentist, bacteriologist, and radiologist, is often necessary in the prevention and proper treatment of focal infections of the oral cavity and the sequelae. Such foci should be discovered as early in life as possible, in order to prevent the many diseases which I have listed as resulting from such infections. Furthermore, after the focus of infection has existed long enough to cause chronic disease, its removal may no longer produce a cure. The kidney, blood vessels, heart, joints, bones may already be injured beyond repair.

The mouth is the great portal of entry of bacteria into the body and must be kept clean to function normally. Oral sepsis causes contamination of food swallowed and in addition many systemic diseases. Tooth decay and infections of the gums, so common in our generation, can be controlled by dissemination of knowledge of mouth hygiene. In the prevention of tooth decay are involved healthy parentage, proper

diet, avoidance of foods which cause tooth decay, and periodic cleansing of the teeth.

Diseased tonsils and adenoids should be removed as early as possible to permit proper development of the child, and to prevent the many diseases following their infection.

Apical granulomtaa should be removed by tooth extraction, after careful dental and x-ray examination. Pyorrhœa should receive proper treatment.

Careful search for one or more foci of infection should be made in the diseases I have discussed. They should be removed whenever possible. In addition to the teeth and tonsils, the nasal sinuses, ear, prostate, seminal vesicles, fallopian tube, appendix, gall bladder, lung cavities, and staphylococcus infections of the skin or nasal passages must be kept in mind. In this way only will the high morbidity and morality from cardio-vascular-renal diseases, infectious diseases of bones and joints, etc., be greatly reduced.

THE DIAGNOSIS AND TREATMENT OF STOMASH DISEASES FROM THE STANDPOINT OF THE GENERAL PRACTITIONER.

Read Before the Marshall County Medical Society, Feb. 20th, 1923

By DR. O. F. COVERT, Moundsville

In this territory, the Wheeling territory generally, we are all general practitioners, except a few head specialists, and most of them take fliers into general practice, so it is appropriate that this paper should be written for general practitioners.

I hope to make it practical, meet every day needs, give you possibly a new idea, or failing in that, fortify you in the ones you already have on the subject. I hope on the one side to steer clear of unwarranted assumptions based on insufficient knowledge, or erroneous judgment, and on the other from attempting an ultra scientific exposition of the subject.

I hope that I shall not find it necessary to quote a single sentence from a text book, or give a single copied formula.

I want to give just what I find useful in everyday work, complete enough to be practical, accurate and useful, yet void of non-essential details.

I do not think it possible to have too deep or broad a foundation of scientific training on which to base one's work, but when it comes to the daily application of knowledge, in the office or at the bed-side, one must cut through scientific theories, conflicting opinions, non-essential details, and must have accurate, positive ideas as to diagnosis, as to diagnostic symptoms and signs. And he must have just as positive ideas as to the best method of treatment. He must have his knowledge classified and crystallized so it becomes to him an instrument of rapidity and precision.

One of the commonest things we hear in our office is, "Doctor, I have been having some trouble with my stomach, so I thought I would come in and get something for it." And right here we should get the proper start. We can not in justice to ourselves or our patients make a snap diagnosis, or what is still worse take

the diagnosis of the patient, prescribe or dispense some ready-made formula and let it go at that.

Not in justice to ourselves, because the man who shirks diagnosis sooner or later finds that he has lost the ability to diagnose, nor in justice to our patients, because the man who prescribes without a diagnosis is not only useless, but becomes a menace to his community.

To my mind the right way for the general practitioner lies between two extremes. One extreme is the one mentioned of making a snap diagnosis and prescribing some ready-made formula that some detail man said was good for stomach troubles.

The other extreme is the method generally followed by the stomach specialist, and sometimes by the group or unit combination of physicians.

This consists of stomach analysis, serial radiography, X-ray of teeth, blood examination, Wasserman, plasma chloride and sugar determination, urea determination and possibly some other laboratory examinations. All this is not necessary and it certainly is not practical.

But there is a practical middle ground where we can work out a correct diagnosis, and institute proper treatment in all, or at least a great majority of all cases, and it will seldom require more than the second visit to reach this end.

The diagnosis and treatment of stomach diseases is not confined exclusively to that portion of the digestive tract known anatomically as the stomach. So in our consideration of this subject we frequently have to consider other organs which are secondarily involved, and sometimes other organs or parts of the body are involved primarily and the stomach only secondarily, but with stomach symptoms often dominant.

Here is a good place to start our diagnosis.

If all parts of the body are functioning smoothly one is not at all aware of the process of digestion, but let the process be interfered with and disagreeable or painful symptoms intervene, and whether the trouble is primarily in the stomach, or elsewhere with reflex stomach symptoms, the patient comes with indigestion and a self-made diagnosis of stomach trouble.

Right here we should make a clear cut differentiation, and decide which one of three classes the patient falls into: (1) Has he an organic stomach lesion? (2) Has he disease elsewhere with reflex stomach symptoms? (3) Has he indigestion from a functionally incompetent stomach or dietetic errors? The differentiation is made of course in the classical way by a critical consideration of the symptoms and signs.

First, as to symptoms found in organic diseases of the stomach, the most striking and almost pathognomonic thing is the constancy of the symptoms. The major symptoms in organic diseases are pain, vomiting, and hemorrhage. These singly or in combination are practically constant, not many meals or days of freedom. In the other classes there will be days, weeks or months of freedom.

The variation of the major symptoms are of importance, first in differentiating between ulcer and cancer, and second in determining the exact location of either. From a practical standpoint it is not of vi-

tal importance that the exact location of cancer or ulcer be determined, but it is of vital importance that they be early diagnosed and differentiated.

As before noted the most pathognomonic thing is the constancy and comparative severity of the major symptoms. If pain and vomiting are present, not relieved by a correction of dietetic errors, we are justified in deciding that our patient has either cancer or ulcer, and he should be placed under very careful supervision for differentiation.

As to differentiation between the two conditions it is not easy and sometimes seems impossible when most important. The diagnosis can be considered under three heads: (1) Age of patient. (2) Physical signs and symptoms. (3) Laboratory examinations.

In general ulcer is found in comparatively young patients, and cancer in comparatively old patients, but this has exceptions. We see cancer in patients under fifty and ulcer in patients over seventy.

As to physical signs and symptoms, considering first pain, in the early stages pain is more marked in ulcer than in cancer, and is more influenced by the ingestion of food in ulcer. Later there is much pain in cancer but the diagnosis is generally made by this time. Considering vomiting, if the cancer is at the pylorus, there will probably be more vomiting than in ulcer, and it is not so much influenced by diet as ulcer.

Hemorrhage is more likely to occur in ulcer, and early hemorrhage will practically clinch the diagnosis of ulcer.

The finding of a tumor at the pylorus as also the obstruction of the pylorus is very suggestive of cancer.

Laboratory tests. The ones usually resorted to are the test meal to determine the acidity of the stomach, and serial radiography. The Ewald test meal is usually employed. This shows the free hydrochloric acid present and the total acidity, using either a single examination or the fractional method. The X-ray reveals (1) The position, size, shape, and motility of the stomach, (2) The emptying time, (3) Filling defects, (4) Filling and deformity of the duodenal cap. In my opinion the test meal is more valuable in the diagnosis of cancer and ulcer than the X-ray. The personal element enters too largely in the interpretation of the X-ray but this is not true of the test meal.

If a patient has symptoms of organic disease of the stomach, and the test meal shows a high acidity, ulcer is almost certain, while on the other hand if there is complete absence of free hydrochloric acid there is a strong suspicion of cancer, and the patient should be under careful supervision and observation for confirmatory symptoms and signs.

I wish to give here the history of two cases which will illustrate some of the preceding remarks.

No. 1 was W. T., age 45, guard at the prison. He was first seen Nov. 21, 1920. He complained that he had stomach trouble, had some distension after meals, pain in the stomach usually when stomach was empty, passing into the back. Nothing very definite or suggestive in the history, other than pain passing into the back. I had him clear out

the bowels, eat no breakfast and come back the following morning for an examination. The physical examination was negative. The contents of the stomach were examined by fractional method using the Rehfuss tube. Three specimens were taken from the fasting stomach, blood in two of them. No free Hcl, total acidity, 20, 18, 14. After the Ewald test meal four specimens were taken, blood in one of them. No free Hcl, total acidity, 14, 16, 14, 14. Weight was 167, red cells 5,700,000, hemoglobin 90 plus. A probable diagnosis of carcinoma was made and he was asked to keep under close observation. He had a son in the medical school in Pittsburg and he was advised to go there for examination. He came in a few times afterward, not so much to consult me as to tell me how well he felt, and to try to convince me he could not possibly have cancer. My answer each time was I hoped not but I still had an open mind. Dec. 11 his weight was 166. That was my last record. He went to another physician and was given four doses of salvarsan. In Feb. 1921 he was shown to the Ohio County Medical Society as a case of syphilis of the stomach, and a series of X-ray photographs shown on which the diagnosis was based.

March 28 he consulted Dr. Lichty of Pittsburg. His laboratory findings were as follows: Hemoglobin 84, white cells 7800, red cells 4.-150.000, Wasserman negative, no free Hcl, total acidity 95. A great deal of blood, mucus, pus, lactic acid, and gram positive bacilli present. His diagnosis was carcinoma of the stomach with secondary involvement of the liver. He was operated on at Mercy Hospital April 12 and died the next day. The findings were cancer of the stomach with liver involvement. No evidence of syphilis. To my mind this case illustrates the tremendous importance that can be attached to one cardinal sign, Achylia Gastrica.

Case No. 2 was seen six days later than No. 1, Nov. 28, 1920. The patient was W. A. G., age 67, retired farmer. Trouble began in the beginning of the summer. Said he passed much undigested food, had much pain and burning in the stomach and was nauseated. At the time of his visit did not vomit except as he produced it to relieve pain. He had severe pain that could be temporarily relieved by producing vomiting. He had consulted a number of physicians and had serial radiography in Wheeling. The diagnosis was cancer and he was considered inoperable. He had lost 15 pounds. He was asked to come to the office the next morning with an empty stomach. He was given the stomcah test using the Rehfuss tube but the stomach was found to contain 200 cc of material dark color, sour odor. After the test meal six specimens were taken. They showed as follows: Free Hcl, 44, 45, 75, 90, 100, 44. Total acidity 90, 90, 110, 110, 160, 90. No lactic acid present. Red cells were 2.808.000, hemoglobin 50-60. Diagnosis of ulcer was made and he was sent to the hospital in the forlorn hope that he could be gotten ready for a gastro-enterostomy. He showed some improvement, but had a tremendous hemorrhage. After transfusion he had another hemorrhage and died. Autopsy showed a very large ulcer at the pylorus taking on carcinomatous changes, but no metastasis.

This was also a case that a stomach test done at the right time would have pointed the way to a correct diagnosis when it would have been worth while.

These two cases are doubly interesting because it was the young man who had the cancer and the older man who had the ulcer.

Just a word as to gastritis. Acute gastritis as the result of ingestion of irritating material is possible but the diagnosis and treatment need not claim our attention. Chronic gastritis is a vague diagnosis, and if made the basis of treatment is still more vague and likely to be barren of results. I think the condition can be more understandingly handled under the heading of functional diseases.

We can best dispose of the treatment of cancer and ulcer at this time. For cancer if the diagnosis is made early there is only one treatment, surgery. Resection or partial resection of the stomach before metastasis takes place is the only treatment to be considered. Later gastro-enterostomy as a palliative measure may be considered in obstruction of the pylorus. When it is too late for surgery I think it is a waste of time and money to consider radium or X-ray. The treatment of ulcer may be medical or surgical, but in the great majority of cases it should be medical. Much meddlesome and unnecessary surgery has been done in ulcer of the stomach. Surgery should be reserved for (1) cases of pyloric obstruction, (2) persistent hemorrhage, (3) cases that fail to to recover under medical treatment.

The medical treatment has of late years been much simplified. There are three methods in common use, the Luebe, the Lenhartz, and the Sippy. The Sippy method has practically displaced all other methods, somewhat modified at times. As you know, that consists in giving every hour from 7 a. m. to 7 p. m. equal parts of milk and cream, 1½ oz. of each. Each feeding to be followed by an alkali to neutralize the acidity. The patient is kept in bed. Later the diet is gradually increased. For the pain of ulcer or cancer I find a combination of Orthorofrm and Bismuth very useful.

While we have now disposed of the organic diseases of the stomach, we have not disposed of all or even a majority of the patients that come to us asking for relief from stomach trouble.

We shall first mention those cases which while disease of some other organ, simulate disease of the stomach or have stomach symptoms.

The intra abdominal diseases most likely to be confused with stomach diseases are appendicitis, urinary calculi, infection of the gall bladder with or without stones.

Acute appendicitis while usually beginning with epigastric pain and vomiting, usually soon declares itself by well known classical symptoms. It is much more common to mistake something else for appendicitis than to overlook appendicitis.

I do not think much of the diagnosis of chronic appendicitis. Unless one has a definite history of preceding acute attacks, the diagnosis of chronic appendicitis is usually an error, and most operations for chronic appendicitis result in disappointment to the physician and patient.

Urinary calculi can usually be differentiated by urinary examina-

tion. The X-ray is also useful. It is sometimes quite difficult to differentiate between ulcer of the pylorus or duodenum and infection of the gall bladder. But in general the stomach lesions are more modified by diet. If symptoms persist in spite of diet, sometimes accompanied by definite soreness in the region of the gall bladder, with or without acute painful exacerbations, we will usually find the lesion in the gall bladder. The X-ray is useful but can not be relied on for positive diagnosis.

The pain of tabes may be mentioned, the vomiting of intra-cranial lesions should not confuse for long, nor should the nausea of nephritis. It is an excellent detail to make a urinary examination on almost every case that comes into one's office. The proper treatment is the treatment of those various conditions and does not enter into the scheme of this paper.

We still have a large number of cases coming to us as stomach patients but having no stomach pathology, or in fact pathology elsewhere so far as we are able to decide. They are those cases of indigestion, constituting a large part of every general practitioner's patients. These cases can fairly well be classified as functional. In text books and among physicians you will find them classified as indigestion, dyspepsia, gastritis, gastric catarrh, nervous indigestion, atonic dyspepsia, flatulent dyspepsia, and sometimes as hyperchlorhydria and hypochlor-hydria. Now let us cut through all these names and get at the underlying condition. And that is simply somewhere in the smooth process of digestion, matters have not gone smoothly, that causes physical discomfort, and for that we are asked to give relief.

What is the cause of this break in the smooth process of digestion, and why do all these patients have physical discomfort?

This large class of patients that may be called functional can be classified under two general headings:

(1) Functionally incompetent.

Under this we have three subclasses.

(1) Due to the subnormal condition of the patient as in tuberculosis, anaemia, leukaemia, bad hygienic conditions, alcoholism, toxaemia of pregnancy, etc.

(2) Due to prolonged abuse of the stomach. It may be prolapsed, dilated, or have lost its tonicity or motility.

(3) Due to the neuroses or psychoneuroses.

Under the second general heading we will place those patients who having stomachs that are functionally competent yet have indigestion due to DIETETIC ERRORS.

Under dietetic errors we think of food that is improper in quantity, improper quality, improperly prepared, and taken at improper times and intervals.

The diagnosis of these two conditions is made by a consideration of the symptoms, and by elimination. The symptoms are much the same no matter what the cause. The patient complains of a feeling of distress in the stomach in connection with the taking of food. There is a feeling of discomfort, sometimes actual pain, distension, burning, belching, bad taste, sometimes nausea and vomiting. Constipation is usually present, and often reflex symptoms, as dizziness,

headache, sleepiness, depression, lack of vigor, tinnitus aurium, stuffiness of the nose, etc. These reflex symptoms may also be considered as toxic in origin due to the improper digestion and assimilation of the food. By elimination we eliminate the organic diseases, and the intra-abdominal diseases that simulate stomach diseases, and we have left these two classes, the so-called functional diseases of the stomach. There are few or no signs present. The laboratory will show nothing definite. The free Hcl may be slightly increased, slightly decreased or normal but nothing pathognomonic.

The X-ray will help determine the presence of dilatation, prolapse, or lack of tonicity. It will show considerable variation in the shape, size, and position of stomachs that should be considered normal. Recently I have found a trace of sugar in a surprisingly large number of these patients, but I do not consider or treat them as diabetics.

The treatment depends on the cause or condition present. In those patients in which the functional incompetence of the stomach is due to the subnormal condition of the patients, the treatment is the treatment of the condition present, tuberculosis, anemia, etc. In those cases in which the incompetence is due to the prolonged abuse of the stomach, we will find that sinning against the stomach is much like the sin that one sometimes sears into his soul, there is no remission, and as long as one lives, one pays. Still something can be done. In those cases of dilatation and lack of tonicity, easily digested food should be selected, where there is retention of food, lavage is useful, out-door exercise and gymnastic exercises to strengthen the abdominal muscles help, and an abdominal supporter gives comfort. Electricity in the form of the sinusoidal current is recommended, but I do not know as to its efficiency. Drugs if thought of at all should be thought of secondarily. They will accomplish nothing so far as correcting the underlying condition. The constipation should be corrected. In younger patients this should be done by the selection of proper food, and the development of better habits. In older patients this is not practical, and one must meet constipation by the use of drugs. One can usually allow his patient to take his favorite pill, or the physician can prescribe his favorite formula. For continued use Carcara will probably give the best results.

If the patient demands some extra attention or fussy prescribing, one can prescribe one of the purgative mineral waters, one of the mineral oils, or anything else that may strike the fancy of the physician. An enema given slowly and in rather large quantity is useful given two or three times a week. Hyperacidity may be neutralized by an alkali. In toxic cases, I know of nothing better after the constipation has been corrected than a fairly large dose of bicarbonate of soda after meals.

We now consider briefly the treatment of neurotic or psychoneurotic patients applying for relief of stomach symptoms, the so-called nervous dyspepsia. This is a trying class, and they are usually "going the rounds." But they deserve our attention. They are real

sufferers, and while they are unstable, have not much self control, yet most of them can be reached and aided. No matter what else a physician is, he should be something of a neurologist. Enough at least to differentiate between neuroses or psycho-neuroses and real pathology. In the class of patients under consideration it is much easier to give them something for their nerves as they so often request, or prescribe some ready-made formula for the stomach, but it is not fair. Every physician can not be a psycho-analyst, or know all the Freudian theories and complexes, but he can encourage those patients, help them get away from their worries and fears, help them substitute more healthful activities for their worries, fears, and introspections.

Many of these patients learn that our drugging does no good, that they get really more benefit from Christian Science, Coueism, or some other cult, and when that time comes, they come to the conclusion that we have been foolish, careless, or ignorant, and some fad has made an ardent supporter, and regular medicine has made an ardent knocker, and the physician is at fault.

Now we come to the last class, patients having neither functional or organic disease of the stomach, still have digestive difficulties due to dietetic errors. The treatment is of course self evident, correct the dietetic errors. But of course it is not so easy as all that. They often do not want to correct their dietary, they often think if they can find the right physician, he will give them something that will enable them to go on eating what they please, and yet suffer no ill consequences. But the diet must be corrected if results are to be obtained. I do not think this matter of prescribing a proper diet is yet on a scientific basis. I think it is like baby feeding, one has sometimes to try, and then try again. The co-operation of the patient should be obtained. An intelligent patient can help very much. A few general principles are to be observed. If it can be determined that there is either persistent hyperchlorhydria or hypochlorhydria the diet can be prescribed accordingly.

One should prescribe foods that are easily obtained by the patient. One should take into consideration the proper proportion of the various food elements, carbohydrates, fats and proteids.

One should know the proper amount of calories for that particular patient, and keep somewhat near that amount.

One common error in prescribing diet is to prescribe too great a variety.

Simple foods, simply prepared, should be chosen.

In general, when I prescribe a diet for an ordinary case, I advise the carbohydrates from the cereals rather than from the tubers or legumes. Add to that milk, butter cream, eggs, sometimes bacon, and the 5% vegetables. Not much fruit and that cooked. This can be varied somewhat to meet the desires of the patient, added to or subtracted from as the symptoms seem to indicate.

The meals should be taken at regular intervals, and no eating between meals. If constipation needs to be met or toxic symptoms are

present they can be met by the methods heretofore detailed.

In conclusion, while stomach diseases or symptoms sometimes seem difficult to treat, and that treatment is often barren of results, it need not be so. Do not hunt for a name and then treat that name, but get a clear cut diagnosis of the condition present, get the co-operation of the patient, think first of physical therapy and diet, largely forget drugs, and success will follow in a comfortable proportion of the cases.

605 Jefferson Ave.

PROGRAM FIFTY-SIXTH ANNUAL SESSION
Beckley, W. Va.

June 12, 13, 14, 1923

Headquarters, Hotel Beckley

All Sessions, Black Diamond Building

Business Session

Monday, June 11, 8:00 P. M.

Council convenes in the Parlor of Hotel Beckley, 8:00 P. M.

The House of Delegates

(This will be the most important meeting of the session.)

All component societies are urged to send to this meeting their full quota of delegates. This session will be held in the Black Diamond Building at 9:00 P. M.

G. H.. Winfrey, Secretary of the Virginia Medical Society, will address this meeting and present a business proposition.

PROGRAM

First Day, Tuesday, June 12

9:00 A. M.

Black Diamond Building

Call to order by Dr. John N. Simpson, President, Morgantown.

Invocation—Rev. B. Lacy Hoge, Beckley.

1. Address of Welcome on Behalf of the City—Mayor C. V. Cottle, Beckley.

Address of Welcome on Behalf of the Society—Dr. A. H. Grigg, Beckley.

3. Response on Behalf of the Association—Dr. J. Howard Anderson, Marytown.

4. Mortality Among Women from Causes Incidental to Child-Bearing; What Can We Do to Reduce It?—Dr. S. D. H. Wise, Parkersburg. Discussion—Dr. Harry G. Steele, Bluefield; Dr. William P. Bonar, Moundsville.

5. Some Indications for the Use of Forceps—Dr. J. R. Bloss, Huntington. Discussion: Dr. C. A. Ray, Charleston; Dr. D. A. MacGregor, Wheeling.

General Session

Tuesday, June 12, 1:30 P. M.

1. The Use of Insulin in the Treatment of Diabetes, illustrated by lantern slides—Dr. Henry J. John, Crile Clinic, Cleveland, Ohio. Discussion: Dr. D. A. MacGregor, Wheeling; Dr. G. H. Barksdale, Charleston.

2. Mortality Factors in Acute Appendiceal Surgery—Dr. Robert J. Reed, Wheeling. Discussion: Dr. J. Ross Hunter, Charleston; Dr. Chester R. Ogden, Clarksburg.

3. Blood Transfusion—Dr. R. U. Drinkard, Wheeling. Discussion: Dr. Walter E. Vest, Huntington.

4. Some Observations of the Water Content of the Blood—Dr. William R. Laird, Montgomery. Discussion: Dr. R. K. Buford, Charleston; Dr. R. M. Bobbitt, Huntington.

5. The Significance of Accurate Blood Pressure Readings—Dr. D. A. MacGregor, Wheeling. Discussion: Dr. Walter E. Vest, Huntington; Dr. C. W. Waddell, Fairmont.

Evening Session

Tuesday, June 12, 8:00

1. President's address—Dr. John N. Simpson, Morgantown.

2. Oration on Medicine—Dr. Manfred Call, Richmond, Va.

3. Oration on Surgery—Dr. William Goff, Spencer.

Morning Session

Second Day, Wednesday, June 13 9:00 A. M.

Surgical Section

Dr. J. H. McCullouch, President, Beckley, presiding.

Dr. B. B. Wheeler, Secretary, Beckley.

1. Part I, Surgical Treatment of Chronic Diarrhea; Part II, Local Anesthesia in Recto-Colonic Operations (both illustrated by motion pictures)—Dr. S. G. Gant, New New York City, N. Y. Discussion: Dr. Granville S. Haines, Louisville, Ky.

2. Some Further Observations on Gall-Bladder Surgery — Dr. Wade H. St. Clair, Bluefield. Discussion: Dr. John E. Cannaday, Charleston; Dr. R. J. Wilkinson, Huntington.

3. Some Bone Conditions—Dr. John E. Cannaday, Charleston. Discussion.

4. Injuries Common to Football, Their Prevention and Treatment—Dr. C. W. Spears, Head Football Coach, Morgantown. Discussion: Dr. Charles G. Morgan, Moundsville.

5. The Treatment of Infantile Paralysis, illustrated by lantern slides—Dr. Arthur S. Jones Huntington. Discussion: Dr. C. M. Ramage, Fairmont.

Afternoon Session

Wednesday, June 13, 1:30 P. M.

1. The Diagnostic Significance of Purpura with Report of a Case of Peliosis Rheumatism—Dr. R. A. Ireland, Charleston. Discussion: Dr. G. H. Barksdale, Charleston; Dr. R. D. Roller, Charleston.

2. Diagnosis and Treatment of Common Skin Diseases, illustrated by lantern slides—Dr. Howard T. Phillips, Wheeling. Discussion: Dr. R. Ruedeman, Huntington; Dr. George Lyon, Huntington.

3. Diagnosis and Treatment of Surgical Conditions of the Kidney and Ureter—Dr. B. S. Brake, Clarksburg. Discussion: Dr. W. S. Robertson, Charleston; Dr. Aubrey C. Belcher, Huntington.

4. Diagnosis and Treatment of Renal Calculus, illustrated by lantern slides—Dr. J. E. Rader, Huntington. Discussion: Dr. Aubrey C. Belcher, Huntington; Dr. W. S. Fulton, Wheeling.

5. The Fourth or Physiologic Era in Surgery—Dr. Robert T. Morris, New York City, N. Y. Discussion: Dr. Chester R. Ogden, Clarks-

burg; Dr. William S. Fulton. Wheeling.

Third Day, Thursday, June 14
8:30 A. M.

Session of the House of Delegates

Election of officers.
Unfinished business.

Morning Session

1. Pre-Operative and Post-Operative Treatment of Enlarged Prostate—Dr. John T. Geraghty, Baltimore, Md. Discussion: Dr. O. D. Barker, Parkersburg; Dr. H. H. Haynes, Clarksburg.

3. Dr. W. T. Henshaw, Charleston.

4. The Treatment of Lobar Pneumonia in Infancy and Childhood—Dr. Fred Ben Quincy, Panther. Discussion: Dr. J. Howard Anderson, Maryton; Dr. A. A. Shawkey, Charleston.

5. Pyelitis in Children—Dr. Byrd Hunter, Huntington. Discussion: Dr. A. A. Shawkey, Charleston; Dr. George Lyons, Huntington.

Thursday, June 14, 1:30 P. M.

Afternoon Session

1. When is the Syphilitic Cured? —Dr. C. W. Waddell, Fairmont. Discussion: Dr. W. S. Robertson, Charleston.

2. Endocarditis and Its Importance as a Complication in Infectious Diseases—Dr. C. A. Ray, Charleston. Discussion: Dr. Harry M. Hall, Wheeling; Dr. Walter E. Vest, Huntington.

3. Operating Room Technique—Dr. Hugh H. Trout, Roanoke, Va. Discussion: Dr. Hugh G. Nicholson, Charleston; Dr. George A. MacQueen, Charleston.

ANNOUNCEMENTS AND COMMUNICATIONS

Chicago, Ill., April 4, 1923.

Dr. J. R. Bloss, Editor,
W. Va. State Medical Journal,
Huntington, W. Va.

Dr. Robt. A. Ashworth, Sec'y,
W. Va. State Medical Ass'n,
Moundsville, W. Va.

Gentlemen:

Mr. Robert McDowell, our General Agent at Cincinnati, has advised that there might be a special car party from southern West Virginia to the American Medical Association convention, San Francisco, June 25th-29th, 1923.

As a matter of information I am attaching copy of itinerary for Speakers' Golf Special, which is being arranged by Dr. F. S. Warnshuis, speaker of the American Medical Association and Secretary of the Michigan Association located in the Powers Theatre Building, Grand Rapids, Mich.

The itinerary, I believe, will explain itself and if any of your members care to join a train of this character (of which going trip is an all expense proposition) suggest you write Dr. Warnshuis at Grand Rapids and he will be glad to give you full information.

Yours very truly,

C. L. McFAUL.

CC: Dr. F. C. Warnshuis
Robert McDowell, GA
Cincinnati, O., April 3rd, 1923.

DR. J. R. BLOSS, Editor,
W. Va. State Medical Journal,
Huntington, W. Va.

Dear Sir:

We are advised by Dr. Ashworth of Moundsville, W. Va., that the West Virginia Medical Association will have party (probably enough for special Pullman car) to convention of American Medical Association, to be held in San Francisco June 25th to 29th, 1923, and also that your party would desire to join special train from either Chicago or Cincinnati.

For your information arrangements have been made to operate special train from Chicago to the convention, leaving Chicago June 17th via C. & N. W., Union Pacific and Southern Pacific Lines, with stop-overs at Omaha, Nebr., Denver, Colo., Salt Lake City, Lake Tahoe, Calif., (in the Sierra Nevada Ranges) and Del Monte, Calif., thence to San Francisco.

Schedule is as follows:

Leave Chicago, C. & N. W., 8:00 P. M. Sunday, June 17.

Arrive Omaha, C. & N. W., 9:30 A. M. Monday, June 18.

Leave Omaha, Union Pacific, 4:30 P. M. Monday, June 18.

Arrive Denver, Union Pacific, 7:30 A. M. Tuesday, June 19.

Leave Denver, Union Pacific, 2:30 P. M. Tuesday, June 19.

Arrive Salt Lake City, Union Pacific, 9:30 A. M. Wednesday, June 20.

Leave Salt Lake City, Union Pacific, 5:00 P. M. Wednesday, June 20.

Arrive Ogden, Union Pacific, 6:00 P. M. Wednesday, June 20.

Leave Ogden, Southern Pacific, 5:30 P. M. Wednesday, June 20.

Arrive Truckee, Southern Pacific, 11:30 A. M. Thursday, June 21.

Leave Truckee L. T. Ry. & T. Co., 11:35 A. M. Thursday, June 21.

Arrive Lake Tahoe, L. T. Ry. & T. Co., 12:30 P. M. Thursday, June 21.

Leave Lake Tahoe, L. T. Ry. & T. Co., 8:00 P. M. Thursday, June 21.

Arrive Truckee, L. T. Ry. & T. Co., 8:55 P. M. Thursday, June 21.

Leave Truckee, Southern Pacific, 9:00 P. M. Thursday, June 21.

Arrive Del Monte, Southern Pacific, 8:30 A. M. Friday, June 22.

Leave Del Monte, Southern Pacific, 2:00 A. M. Saturday, June 23.

Arrive San Francisco, Southern Pacific, 7:00 A. M. Saturday, June 23.

Equipment will consist of the latest type of Pullman sleepers (including Compartments and Drawing Rooms) Dining Car and Observation Lounge Car, equipped with player piano and victrola.

Rate will be made to cover all expenses from Chicago to San Francisco, one way, sleeping car, meals, auto trips, tips, golf fees, etc. Return trip can be made as individual passengers desire.

Dr. F. C. Warnshuis, of Grand Rapids, Mich., is in charge of arrangements and reservations, and would suggest you communicate with him, and he will be glad to furnish itinerary of further detailed information, also make any necessary arrangements for your trip.

Round trip reduced rate Summer Tourist fares to California will be in effect from West Virginia points daily from May 15th to September

30th, wtih final return limit of October 31st, stop-overs permitted at all points. Will be glad to furnish you with information as to definite fares as soon as published, and on receipt of advice from you from what points you will desire these rates.

Please let us hear from you, and oblige,

Yours truly,

ROBT, McDOWELL.

Dr. Robert A. Ashworth, Sec'y,
West Virginia State Medical Ass'n,
Moundsville, W. Va.

February 24, 1923.

To the Presidents and Secretaries of All State and County Medical Societies.

Dear Doctor:

Please consider this a fraternal and personal letter from the members of the California Committee of the A. M. A. Convention to you and every member of your society. It is a special invitation to you to attend the 74th Annual Convention of the A. M. A. in San Francisco, June 25 to 29, 1923.

All of the 4000 members of the California Medical Association are hosts at this year's meeting. We are making plans for a great meeting, with many special features, and we want you to come.

The interest and co-operation of our leading civic, commercial, transportation, hotel, tourist and other agencies has been secured to help visitors with any plans or problems that they may have regarding the trip.

All the scientific meetings, all exhibits, the House of Delegates, and, in fact, all important activities will be held in one building—the Civic Auditorium—close to the commercial and hotel section of the city.

Many social, sight-seeing trips and tours are being arranged to suit the convenience of visiting Fellows and their friends.

Monday and Tuesday, June 25 and 26, will be given over to a series of nearly 100 Diagnostic Clinics. These will be given in the accredited hospitals of San Francisco and Oakland by both visiting and California Fellows. They will cover many subjects.

Monday and Tuesday, July 2 and 3, Post-Convention Diagnostic Clinics will be held in many places in the State, under the auspices of one of the forty-one county medical societies or hospitals accredited by the Council on Medical Education and Hospitals of the A. M. A.

May we ask that you read this communication at the next meeting of your society and that the letter be posted where the members may see it?

It would be of material assistance to us to have an estimate of the probable number of members and visitors who are likely to attend the convention. Will you help us in this by filing in and mailing enclosed postcard?

Please ask any of your members who contemplate coming to the convention to make any request for service of any kind of our offices. Address Dr. W. E. Musgrave, Chairman California Committee, Convention Headquarters, 806-809 Balboa Building, San Francisco. Watch

the columns of the Journal of the American Medical Association for convention news items.

Sincerely yours,

INA M. RICHTER, Sec'y,
California Committee on Arrangements.

Chairman, W. E. MUSGRAVE,
California Committee on Arrangements.

DR. J. R. BLOSS, Editor,
West Virginia Medical Journal,
Huntington, W. Va.

Dear Doctor:

During March, the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies:

Abbott Laboratories, Sulpharsphenamine—Abbott.

Borcherdt Malt Extract Co., Borcherdt's Cod Liver Oil and Iron Iodide.

E. R. Squibb & Sons, Sulpharsphenamine—Squibb.

Nonproprietary Article: Sulpharsphenamine.

Yours truly,

W. A. PUCKNER, Sec'y,
Council on Pharmacy & Chemistry.

My dear Doctor:

It has been proposed by many physicians to form an American Society for the Scientific Study of the Medical Aspects and Treatment of Cancer, the exact name and plan of work to be determined after it is organized.

As I was instrumental in creating the American Dermatological Association, by inviting those interested in Dermatology to meet during the session of the American Medical Association in Philadelphia, on the occasion of the Centennial Celebration in 1876, which Dermatological Association has continued in great activity ever since, I have been asked to issue a call to those interested in cancer to come together and form the Association first mentioned.

As so many of the profession expect to gather at the coming meeting of the American Medical Association, in San Francisco, June 25th to 29th, this year, it has been thought the occasion would offer a good opportunity for the consideration of the matter. The plans, scope, and details, and also the name of the Cancer Association could then be worked out, and the organization then effected.

I am, at the request of others, writing to ask if you would be interested in the undertaking, and if you would probably be there and take part in the organization.

Hoping to hear favorably from you shortly, I remain,

Sincerely yours,

L. DUNCAN BULKLEY.

P. S. If you cannot be at the organization meeting I should very much like to know if you are in sympathy with the work, and would accept membership in the Society when it exists.

L. D. B.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

C. R. ENSLOW, M. D.
J. E. RADER, M. D.
W. E. VEST
- Assistant Editors

THE JOURNAL issued on the first of each month. Entered as second class matter, January 1, 1916. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

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Single Copies - - - - - - - - 35 cents

All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

Editorial Office: 804 Lincoln Place, Huntington, W. Va.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

PRESIDENT: Dr. John N. Simpson, Morgantown.

FIRST VICE-PRESIDENT: Dr. R. J. Wilkinson, Huntington.

SECOND VICE-PRESIDENT: Dr. Harry M. Hall, Wheeling.

THIRD VICE-PRESIDENT: Dr. W. E. Vest, Huntington.

SECRETARY: Robert A. Ashworth, Moundsville.

TREASURER: Hugh G. Nicholson, Charleston.

DELEGATE TO A. M. A. 1922-1923: H. P. Linsz, Wheeling; Alternate, J. E. Cannaday, Charleston.

DELEGATE TO A. M. A. 1923-24: Jas. R. Bloss, Huntington; Alternate, M. V. Godbey, Charleston.

COUNCIL

FIRST DISTRICT: H. P. Linsz, Wheeling, two-year term; C. G. Morgan, Moundsville, one-year term.

SECOND DISTRICT: C. H. Maxwell, Morgantown, two-year term; J. C. Irons, Dartmoor, one-year term.

THIRD DISTRICT: L. H. Forman, Buckhannon, two-year term; C. R. Ogden, Clarksburg, one-year term.

FOURTH DISTRICT: J. E. Rader, Huntington, two-year term; G. D. Jeffers, Parkersburg, one-year term.

FIFTH DISTRICT: H. G. Steele, Bluefield, one-year term; J. Howard Anderson, Marytown, two-year term.

SIXTH DISTRICT: R. H. Dunn, Charleston, one-year term; B. B. Wheeler, Beckley, two-year term.

THE KNOCKER

The knocker is a curious cuss;
He never starts to whine
Or fling his envious shafts at us
Until our work is fine.
It's only men with skill to do
Real work he tries to block;
And, so, congratulations to
The man the knockers knock.

—Wm. Angus.

Medical World, Nov., 1920, p. 348.

HAVE YOU PAID YOUR DUES?

The time for the Annual Meeting is rapidly approaching. During this month the various local societies will elect their delegates. Remember your Secretary is your first delegate and that your society is entitled to an additional one for each twenty-five members, or fraction thereof above ten. Be sure that your dues are paid at once.

This past year there have been innumerable suits brought against physicians. They are being brought against men in general practice too, as well as surgeons and other specialists. How any man in the profession can feel safe outside of the

State Association with its mal-practice defense is beyond our comprehension. Remember that this additional protection costs but one dollar and yet some men do not want it. Remember again you can not claim the defense after you are sued if your dues are not paid by April first.

See that your dues are paid at once to your local secretary. Then Mr. Local Secretary, send the remittance for all paid-up members promptly to Dr. Ashworth.

THE BECKLEY MEETING

In this issue you find the program for the approaching annual session. It is to be hoped that each member will read it over. It would seem that it measures up, in promise, to the standard which the West Virginia Medical Association has established. The members would do well to carefully note those addresses which promise to be of especial interest to them and come prepared to enter into the discussions.

If all the plans of the Raleigh County Society, as given to us in their advertisements, materialize, this will be the best meeting we have ever had.

Make your plans to come. There will be something doing every minute.

THE OHIO COUNTY MEDICAL SOCIETY BULLETIN

Recently we have received a copy of their maiden issue—Vol. I, No. I.

The officers of the Society are to be heartily congratulated upon this issue. It compares very favorably with those from other societies, which have been issued for several years.

It is fine to have such a wonderfully alive and enthusiastic group of physicians working so industriously to make their local organization mean something to its membership.

Those of us who have been reading Harry Hall's, their reporter, letters each month can not but be filled with admiration. Possibly a wee tiny bit of envy might be found creeping if the truth were but known.

Such an example as Ohio County is giving to us can not but stimulate the rest of our component bodies.

Again we congratulate you, Ohio County.

HEALTH OFFICERS

While we are on the subject of Ohio County, it is impossible not to mention the work of the head of their Health Department, Dr. W. H. McLain. You remember Hall said in one of his recent letters that sometimes thoughts of assassination came into his head when he thought of their Commissioner of Health.

Evidently Dr. McLain has given "the powers that be" to understand that neither his religion or political affiliations are any of their, or his, concern. He is Health Commissioner and is going to do his work as he thinks it should be done. If they don't like it, then get someone else. At any rate he is determined enough to enforce the law that he has been sued for some twenty-five thousand dollars. We venture it will never come trial.

Yesterday we received a complete page advertisement of the Health Department of Wheeling.

This was headed "The Danger of 'Secrecy' in the Treatment of So-called 'Secret' or Twin Social Diseases, from the Public Health Standpoint." Certainly this question was put forward plainly and yet in such a way that no offense can be taken by the most prudish persons. That is if they have an iota of brains.

To those of us who think as we practice the awfulness of Luetic and Gonorrheal infections grow more terrible.

It gives one a feeling of elation that a member of his own profession can so courageously take up the battle. Again one feels elated that the medical profession is backing Dr. McLain. If the truth were known we suspect that his stand may not be unanimously approved of by the profession. Still they must be making it unanimous enough for all practical purposes.

If more health officials would be so unflinching it would be a wonderful thing for the welfare of our communities. It requires courage to be an A-1 Health Commissioner and the hide of a Rhinocerus to ignore the shafts of malice that are hurled at one. It will require much educational propaganda not only to the laity but for our profession as well before these brave men secure the fullest co-operation.

More power to them!

THE STATE AND PUBLIC HEALTH

In his inaugural address recently, Gov. A. E. Smith, of New York, expressed his views upon this question as follows:

"Activity by the State for the preservation of public health can never be too broad. While we may congratulate ourselves on the steadily diminishing death rate, we must not permit ourselves to slow down for a single moment any effort that the State should put forth for the protection of the public health and the prevention of disease. Too many people are prone to the idea that health is the concern of the individual. I believe it to be the business of the State, because the State itself cannot be healthier than its people."

Gov. Smith shows evidence of having a broad social ideal. His words should make one pause and ponder. The statements are true. We wonder if our profession has thought of it in this light? There is a fear that we have not given such consideration to health legislation as the exigencies of the situation demand.

Our profession has been remiss in taking the lead in matters of this kind. We must come to a realization that legislation must and will come dealing with these questions. Physicians must interest themselves and endeavor to guide it in the proper channels. This does not mean at all in "selfish" channels. We have never been selfish as a profession, God knows, though naturally some individual members may fall short of our standard.

American Medicine in commenting upon Gov. Smith's address and proposed health legislation remarks:

"This indicates that, in all probability, social legislation will be presented to the New York Legislature in consonance with the beliefs of Governor Smith, and the profession itself will again be placed upon trial as to its own social thinking. Undoubtedly, there will be additional bills dealing with various cults,

seeking for opportunities to practice legally, and numerous other items that may affect the welfare of the medical profession. With the broad interpretation for which Governor Smith is commendably known, and with his outstanding courage in the matter of vetoing undesirable legislation, it is more than probable that physicians need not fear for any invasions of their essential rights, or a decrease of their granted privileges.

"There probably will not be unanimity of opinion concerning the merits of much of the proposed legislation, but the fact remains that more and more are laws being drawn and enacted on the basis of the interests of the State as a whole, as contrasted with their benefits to, or effects upon, any particular group of citizens within the State, even though they chance to constitute a professional class.

"The dictinctly medical point of view cannot be regarded as entirely in accord with the point of view of the State. The part of medical opinion which reflects thought upon the State as a whole, is more likely to receive the fullest attention of legislators, even though the proponents of such be of a small minority of the profession. It is for this reason important that county societies throughout all States, in the discussion of problems dealing with public health should manage to place upon their official programs speakers who will present the non-medical viewpoint. This will aid physicians to appreciate the attitudes of various constituencies that aid legislators to crystallize their ideas for the purposes of voting upon proposed bills."

In the efforts of our profession to oppose certain bills and to support certain others in the present session of the West Virginia Legislature, it has certainly been proven that the physicians have lacked cohesion and leadership. Clearly it has been proven that we have no definite plans of our own to offer and even more clearly that we are not a closely knit and militant body, trained to the matters of opposing legislation inimical to the welfare of the body politic.

Quoting American Medicine again on this failure of physicians as lobbyists we find the following:

"Medical lobbies have not been particularly strong, nor is it an easy matter to gather together a group of physicians willing to make the personal sacrifice necessary to visit State capitals for the purpose of protesting for or against impending legislation. Not infrequently the speakers from the small groups that go for this purpose are insufficiently informed concerning the social facts involved or are untrained in the art of presenting in a convincing or persuasive manner the facts which are deemed unanswerable.

"Further, the various differences of opinion existent in different sections of New York State make unanimity of thought difficult. Honest disagreements within a profession are to be welcomed, and both majority and minority should be mutually respected for their beliefs and the courage of their convictions. The tendency to abuse that is often manifest only weakens the status of the pleaders. Governors and legislators after long experience in politics are immune to many forms of verbal attack which might be productive of better results with im-

mature, untrained or unthinking persons.

"It is time for the medical world to take cognizance of the value of solidarity and the determination of a policy which is founded upon a sense of appreciation of social needs and an understanding of the part that health is increasingly playing in governmental action. Legislation is not static, nor can medical opinion afford to be less dynamic than medical progress."

The opposition of the profession to the proposed bill for the licensing of Chiropractors certainly showed the lack of training and a still more woeful lack of preparation on the part of the organized medical profession in our State.

This lack must be remedied. It must not be delayed. At the coming meeting in Beckley some definite steps must be taken. Be thinking over the question of our professional apathy and indifference.

COUNTY SOCIETY REPORTS

Editor West Virginia Medical Journal:

The Barbour-Randolph-Tucker County Medical Society met in its regular quarterly meeting in the Y. M. C. A. building, Elkins, W. Va., April 18th, 1923, the following physicians being present: Drs. S. G. Moore, A. S. Bosworth, Lyon, Butt, Talbott, Wilson, Wimbish, Pierce, Perry, W. W. Golden, B. I. Golden, McIntosh, Perry Bosworth, W. S. Michaels, Irons, and Dr. J. U. Baker, Dentist.

In absence of the President, Dr. Pierce presided. The minutes of the previous meeting were read and approved. Dr. Ben I Golden, of Elkins, and Dr. W. S. Michaels, of Norton, under suspension of rules were elected members of the society. Dr. F. K. Lyon was elected a delegate to the State Medical Society, Dr. J. L. Miller, alternate.

The Society heard with regret of the serious illness of Dr. M. M. Hoff. The Secretary was directed to see to paying dues of ill members in State Society. On motion the Society extends hearty thanks to Dr. Calvert for his opposition to the Chiropractor bill, which was before the West Virginia House of Delegates. Dr. S. G. Moore read from notes a most interesting paper on "The Present Status of Endocrinology," showing the recent advances in the study of the secretory glands of the body, and the effect of improper functioning, and the results of later mode of treatment. Dr. Moore cautions against accepting, at full value, the many lauded treatments and preparations appearing in advertisements. One of the most recent discoveries which gives great promise of almost a specific in the treatment of diabetis is Insulin. Gratifying results have been obtained in the treatment of what was heretofore thought to be hopeless cases, with this medicine. Though its use is too recent to decide as to lasting good, yet its present success gives promise of lasting good. Dr. Moore hopes to be able to prepare a more elaborate paper for the State Society, when we shall expect the paper to be printed in the State Medical Journal.

Dr. J. A. Baker of Elkins, demonstrated the new method of Anaesthesia in operations about the mouth or teeth. This proceedure is commonly known as the "Block Method." Dr. Baker demonstrated the

points at which the different nerves to the teeth could be reached and sensation suspended for time, and painless extracting, filling, or other operations performed. He also showed the successful treatment of pyorrhea, the heretofore most unsatisfactory condition of the teeth or gums. Dr. Baker truthfully said there was much need of a more cooperative spirit between the physician and the dentist.

The next meeting will be held in Tucker County in July, the day and place to be arranged by the Tucker County members.

J. C. IRONS, Secretary.

March 14, 1923.

The regular monthly meeting of McDowell County Medical Society was called to order in the offices of Welch Hospital, Welch, W. Va., on Wednesday evening, March 14, 1923, at 8:15 o'clock, by President Chas. R. Woolwine.

Roll call found the following present: Drs. Woolwine, Kirkpatrick, Vermillion, Weatherby, Stevens, Garbig, Stump, Sameth, Sheppard, Livingston, Qunicy, Camper, Lovely, C. G. Fahndrich, Thomas and Anderson.

The minutes of Feb. 14, 1923, were read and approved.

Clinical Cases:

Dr. Quincy had present and presented for observation a case of Hydrocephalus. The child was but two months of age and the head was progressively increasing in size.

Dr. Livingston in giving a follow-up report of the automobile accident case whom he had taken to Walter Reed Hospital stated that the present status of symptoms confirmed the former diagnosis of complete transverse lesion of the cord, and that the patient had recently suffered two attacks of pulmonary oedema.

Papers:

Dr. Stevens presented a most excellent paper on "Influenza," in which he portrayed the wonderful history of this disease, touched upon the uncertainty of an absolute specific cause, summed up the subject of established immunity by the conclusion that one attack confers a relative immunity, and stressed and deplored the fact that in all these years little if any progress has been made in the success or methods of treatment.

Discussions:

Dr. Kirkpatrick expressed the belief that Flu was largey an intestinal malady. Best treatment rest in bed and strict diet.

Dr. Weatherby believed that the specific germ was carried by the air, and that this germ depended upon its conjunction with other germs for its virulency.

Dr. Gerbig advised practically no treatment but rest in bed.

Dr. Quincy counselled treatment of symptoms as they arose and the adoption of no rigid line of treatment. He thought disease due to B. Influenza plus some other disease and that weakened heart muscle responsible for most deaths. He favored buttermilk and lemonade as diet.

Dr. Livingston called attention to the fact that lower mortality in recent years was probably due to weakening of the strain of the germ.

Dr. Camper advised against the use of straight sweet milk as diet and the use of Beta Napthol as intestinal antiseptic, if any.

Dr. Sheppard stressed the fact that treatment had to be varied as to the type of the disease present.

Dr. Anderson believed that the great variety of the symptom complex presented in influenza was due to the fact that the B. of Influenza had an abnormal adaptability in combining itself with other germs and making a combined attack upon its victim. That the difference in chain of symptoms, in apparent virulency, and in the mortality depended largely upon the germ with which it made this combined attack. That the milder epidemics intervening between the distantly separated severe epidemics may be explained not only by a weakened strain but by a certain amount of nationwide acquired immunity. In the history he called attention to the fact that severe epidemics seemed to follow the migration of bodies of men to or from the Steppes of Asia where this disease was endemic. In treatment he counselled the careful watching of the kidneys and heart and supporting these organs when need arose.

Dr. Stevens closed the discussion by placing stress on the careful and painstaking management of cases by the doctor.

Unfinished business:

The Secretary reported an interview with Senator McClaren with reference to the Chiropractor Bill before the State Legislature. He read a letter he had written to the Senator. He also read Resolutions prepared by Committee as instructed by Society.

The Resolutions are as follows:

Whereas, The laws of the State of West Virginia justly and rightly demand that, before the health and lives of her citizenship s hall be placed in the hands of any one, said individual shall give evidence, by means of an examination before the State Health Council, of his knowledge of, and proficiency in certain branches of learning, viz: Medicine, Surgery, Anatomy, Obstetrics, Physiology, Chemistry,, Materia Medica, Therapeutics, Gynecology, Medical Jurisprudence and Hygiene;

And, Whereas: Regardless of his method of treating patients, whether by the knife,, by prescription, by splint, by hydrotherapy, or by manipulation; and regardless of whether he desires to use only one or more of those various branches in his method of treatment, it has been wisely demanded that he give evidence of his qualifications in all of these branches;

Therefore, BE IT RESOLVED, That we, the McDowell County Medical Society, a body of men who have complied with the law by so qualifying, do herewith and hereby protest most vigorously against any legislation which will permit any one to practice the Healing Art, and thus take the health and the lives of the State's citizenship in his hands, without first having been required to satisfy the State Health Council of his knowledge of and proficiency in all of the above named branches even though he may only claim to specialize along one certain line of proceedure;

Furthermore, BE IT RESOLVED, That we would consider any such legislation as being of the nature of

class legislation of the most vicious and discriminating type.

Respectfully submitted,
A. G. RUTHERFORD,
J. HOWARD ANDERSON,
Committee.

These Resolutions were formally adopted and Secretary ordered to send copies to all our district legislators. Also each and every member was exhorted to either write letters to or have a personal interview with each of these legislators.

New business:

The Secretary presented the applications of Drs. H. P. Evans, H. R. Cornell and C. R. Hughes. By motion these applications were received and referred to the Censors for action.

Adjournment.

By motion the meeting adjourned.

J. HOWARD ANDERSON,
Marytown, W. Va. Secy.

Princeton, W. Va.,
March 22d, 1923.

The Mercer County Society met in Dr. J. R. Vermillion's office at 8:15 P. M. with Pres. Bird in the chair.

The secretary was detained and arrived late—about 9:15 P. M. when the society was called to order.

The minutes of the previous meeting were read and approved.

Under clinical cases every doctor present was asked to report a case. They declined till it came to the secretary when he insisted on reporting a Blue Baby, giving ten causes for this condition, as suggested by Hirst and other authors. This started the ball a-rolling and then every doctor joined in the discussion and reported one or more very interesting cases. Dr. J. R. Vermillion related a case he had seen of a blue baby living till it was 13 years old. Dr. Ira Smith reported a case of collapsed lung.

The Society went on record as being in favor of the passage of a bill now before the legislature of West Virginia to amend and reenact Section 32 of Chapter 145, of the Code of West Virginia, relating to fraudulently obtaining food and lodging from hotels, inns, eating, lodging or board houses, restaurants and hospitals and to fix a penalty thereof. This amendment simply adds the word hospital to the bill already in force.

Dr. David Littlejohn was elected as a member of this society.

The programs for May and June meetings were read.

Adjourned at 10:20 P. M.

H. G. STEELE, Secretary.

The Raleigh County Medical Society met in regular session Thursday, April 5th, 8 o'clock, in the parlor of the Beckley Hotel, the president, Dr. A. H. Grigg, presiding. The regular routine business was disposed of and the president called on the various committees for a report of their activities as regards entertainment for the state meeting. Each committee was represented and reported everything working fine and that practically all arrangements have been completed for the state meeting.

The following was the program for the evening:

"Spontaneous Version and Spontaneous Evolution," Dr. U. G. Cook, Beckley.

"Focal Infections," Dr. W. T. Riffe, Beckley.

"Pyelitis," Dr. D. B. Jarrell, Beckley.

"Report of Case of Syphilis," Dr. E. S. Dupuy, Beckley.

Dr. Cook's paper showed that "Spontaneous Version and Spontaneous Evolution" was an unusual condition and seldom met with in the practice of Obstetrics. Dr. Cook always reads interesting and instructive papers the society is always glad to hear from him.

Dr. Riffe's paper on "Focal Infection" was splendid; showed evidence of close study of the teeth as regards focal infections, and the society as a whole vouched for the statements made in Dr. Riffe's paper as being absolutely true. Dr. Riffe is a member of the local dental profession, and we were very glad to have his instructive paper.

Dr. Jarrell's paper on "Pyelitis" was very good. This is the first paper we have had from Dr. Jarrell in some time, and we hope he will respond again with another good one.

Dr. Dupuy's paper on the "Report of a Case of Syphilis" showed conclusively how easy it is for a physician to make a faulty diagnosis, and also what a pleasant thing it is to get results when the proper diagnosis is made.

These papers were discussed by various members.

The following members were present: Drs. J. A. Campbell, T. F. Garrett, C. S. Smith, J. H. McCullouch, Robert Wriston, U. G. Cook, B. B. Wheeler, W. T. Riffe, J. H. Hoskins, D. B. Jarrell, K. M. Jarrell, W. W. Hume, O. B. Lynch, A. H. Grigg, F. B. Puckett, E. S. Dupuy and A. U. Tieche.

No further business, the society adjourned.

CHAS. S. SMITH, Sec'y.

STATE AND GENERAL NEWS

B-R-T NEWS NOTES

J. C. IRONS, Reporter

Dr. S. G. Moore of Elkins, W. Va., recently returned from New York after taking several weeks postgraduate course in University of Medicine of New York City. He was especially interested in Endocrinology, and comes back fully awakened to the possibilities in this latent field of medical science.

Dr. H. K. Owens spent a short session in Philadelphia in post graduate work. He has not favored our society wtih any of his newly acquired information.

Dr. Ben I. Golden is now assisting his father, Dr. W. W. Golden, in Davis Memorial Hospital. Ben seems very much at home in the operating room, and uses surgical instruments with skill and ease.

Dr. M. M. Hoff of Philippi, we regret to note, is still quite ill, and after nearly one year of suffering, there seems very little change for the better.

Within our territory we think we have two of the oldest practicing physicians in the State. Dr. Jno. T. Huff of Parsons, in his ninety-first year, still does office work and occasionally makes calls. Dr. Jno. W. Bosworth of Philippi, in his eighty-seventh year, still looks after office work. He recently had a tussle with the flu, which gave him quite a siege, but he is now able to

greet his friends with his courtly style as of yore.

Dr. F. B. Murphy, formerly a faithful member of our Society, is now dispensing pills in Akron, Ohio.

We are still wrestling with our Medical Society delinquents. Can some physician discover a sure cure for delinquents or indifferents?

McDOWELL NEWS

J. HOWARD ANDERSON, Reporter

Dr. H. G. Camper of Welch has just returned from basqueing in the sunshine of Florida winter resorts.

Dr. A. G. Rutherford, superintendent of Welch Hospital, Welch, spent a large portion of March attending the Mayo Clinics at Rochester, Minn. He returns most enthusiastic about everything at Rochester, except the weather; it gave him a very frigid reception.

Dr. W. B. Stevenson, Eckman, is back at work after a short visit to the Medical and Surgical Clinics of New York. His stay in New York was both enjoyable and profitable.

Dr. B. K. Lovely, Welch, recently took a flying trip to West Baden for the purpose of seeing one of his patients safely to the Springs..

Dr. J. Howard Anderson, Marytown, took in the meeting of the American Congress on Internal Medicine at Philadelphia during the week of April 2 to 7.

OHIO COUNTY

HARRY M. HALL, Reporter

A great deal of activity by the Ohio County Society has been shown in the passage of the now famous "CHIROPRACTIC BILL," which is being considered by the West Virginia Legislature. This Society sent a representative who happened to take his turn in talking before the Judiciary Committee. He also spent a day in interviewing all his local representatives in the Senate and in the House. Numerous telegrams were sent at opportune times from Wheeling, and all the pressure that could be brought to bear upon the delegates was used. They were also interviewed in the interval of adjournment incident to Easter. Mr. Beneke was met, as were also two others, in a room at the Ohio Valley General Hospital, and questioned as to his attitude. Mr. Beneke made the physicians at this meeting more or less angry but it must be granted he came out and said what he thought. He reminded us all—and it might be added to our discomfiture—that a bill similar to what we were opposing had been voted on by the Committee on Sanitation and Medicine favorably, and which allowed the Osteopaths to do what we didn't want the Chiropractors to do. Furthermore he reminded us four doctors were on this, and if we recollect correctly he stated approved by the Health Commissioner. As it is said, we understood it that way. If such is the case the inferences are very plain; either the Doctors on this committee were powerless or negligent, or else not on their toes. The same might be added of the Health Commissioner, and above everything where was the Legislative Committee of the State Society? Now the above inferences are solely in the words of the reporter writing them, but he is only putting in words what he has heard very, very often where physicians are gathered together. As far as he is concerned he don't know who is on the Legislative Com-

mittee, but the chances are whatever they would like to do they couldn't on account of time and perhaps no appropriation. This brings us to a well written and timely article on page 448 of the West Virginia Medical Journal for April, entitled "The Indifference of the Medical Profession in Legal Matters." This has the whole matter neatly summed up. There are men everywhere who object to paying their small "medical dues," and go right out and throw ten dollars away on two opera tickets or a dinner, and never say a word. This reporter heard Mr. Neal speak of the Chiropractors. He wishes he could have had it sent by Radio to every doctor in the State. We will wager we would vote an appropriation at the next State Meeting that would mean something. Dr. Ray of Charleston won his admiration for ably defending the Medical Profession. It is a serious matter, and no matter how it turns out this Ohio County Society, while getting into action a little late, feels it has done its duty, and if every Society in the State had done likewise it is believed we would have been better off. Telegrams, resolutions and dignified protestations do not seem to count. What is needed is a Bureau constantly in action, constantly on the job the year around, and capable of any quick concerted action. When we have that we will not have anything on the other side who already possesses one, we understand.

The Bill has passed the House and Mr. Beneke made a speech, so the papers led one to believe. No one spoke against it—which shows what seventy chiropractors can do against several thousand doctors. During the whole period incident to the passage of this bill this reporter has been struck with our inertia and our impotency, and he is almost coming to believe like the Editor of the Journal, that maybe it would be just as well to let the bars down and allow the public to get the bill for its thoughtlessness. We have heard of this being carried further still, and where people seem so wedded to these cults let them have the opportunity to call them in day or night for all the ailments, injuries and accidents they may have.

The first issue of the Ohio County Society Bulletin was recently issued. This is for purely local happenings, and of course in no wise encroaches on the domain of the State Journal. It is following out the suggestion of the J. A. M. A. that each Society should have a Bulletin. This one was modeled from the Cleveland Academy of Medicine Bulletin.

Both hospitals here are full, and could be easily enlarged to twice their capacity.

The Rotary Club held a crippled children's clinic. Dr. Walter Stern, Orthopedic Surgeon of Cleveland, had it in charge. It was a great success and about seventy patients were handled the first day.

Dr. Arthur K. Hoge attended the Mayo Clinic and during the summer his partner Dr. Ivan Fawcett will attend for three months the Vienna Clinics.

March 16, 1923—We have had Dr. John W. Gilmore, "Diagnosis and Treatment of Early Tuberculosis," Dr. R. U. Drinkhard, "Artificial Pneumo-thorax."

Dr. Gilmore very thoroughly covered the tubercular field. He was

assigned to this field in the late war and has since handled the veterans so afflicted. His paper was simple, direct and to the point, and was well received. Dr. Drinkhard has had a wide experience in the realm of Artificial Pneumothorax. He gave a great many Radiographs, recited his experiences, giving also his disasters as well as his successes, and gave too as his opinion that one could not foretell what the outcome of these cases would be on first seeing them, but must run his chances. It was an interesting lecture.

On March 30th, 1923, H. M. Hall gave a rather long paper on "Faith Healing and Other Cults." He has as we know criticised others for the fast reading of papers and gave his own too rapidly—which after all considering the lateness of the hour was just as well.

On Friday, April 6th, 1923, we should liked to have had the Judiciary Committee of the West Virginia House of Delegates as well as Mr. Neal, celebrated lawyer, present at the meeting. Dr. John Staige Davis gave a lecture on "Some of the Problems of Plastic Surgery.." Here was a long series of frightfully maimed humans—so hideous, some of them, as to repel a medical man —brought up through a painful process as regards tediousness and restored to being fairly presentable persons. This surgeon is patience itself, some of these cases requiring thirty or forty operations. It was positively one of the most impressive talks we have heard here. The Doctor is a kind of matrimonial bureau. Some of these seemingly hopeless derelicts turned out, write the Doctor saying, "and she has been recently married," whereas from the start all our money would have been placed with no misgivings, the other way.

One can think of no more human occupation than to graft and renew and rebuild discouraged, agonized human beings with hideous faces and bodies so that they could pass in and out of the rest of humanity's daily lives and perhaps scarcely be remarked. Dr. Hupp who has just had a successful operation of this nature to his credit gave a good discussion, as did also Doctors Caldwell and Ackerman.

Dr. Oscar B. Biern of Huntington has returned from Philadelphia where he attended the American Congress in Internal Medicine. He spent five days in New York City also.

Dr. William Laird and Dr. William Nelson of the Coal Valley Hospital, were visitors in Huntington recently from Montgomery.

Dr. W. S. Rowan of Logan has gone to New York where he will spend the next thirty days taking a graduate course at the New York Graduate Hospital, specializing in the treatment of diseases of children.

Dr. F. O. Marple of Huntington, eye, ear, nose and throat specialist, associated with Dr. C. M. Hawes in the Hawes-Marple Hospital, will sail June 16 for Vienna to take an extended post-graduate course in his specialty under leading physicians and surgeons of the continent. Dr. Marple will be one of a class of about forty specialists from all parts of the United States who will take the special courses in Vienna. The party will sail on the steamer Rot-

terdam, of the Holland-American line, studying for five hours each day aboard the vessel under Dr. George W. Mackenzie, of Philadelphia, noted lecturer and teacher, who will conduct the party. Classes on the ship will be held daily on both trips across the Atlantic.

Dr. H. D. Hatfield, of Huntington, chief surgeon of the new Guyan Valley Hospital, in Logan, which opened its doors March 31, paid the institution his first official visit recently. Dr. Hatfield expressed himself as well pleased with Logan's newest acquisition in the hospital line.

Born, April 10, to Dr. and Mrs. W. F. Beckner, of Huntington, a daughter, named Margaret Wilson.

Dr. C. L. Holland of Fairmont attended the meeting of the American College of Physicians in Philadelphia in April and was admitted to fellowship in same. Mrs. Holland accompanied him.

Dr. Walter N. Rowley of Huntington was called to Rochester, Minn., recently on account of the death of his father.

Dr. Earl B. Gerlach, city health officer, and Dr. L. T. Vinson, county health officer, both of Huntington, attended the annual convention of Municipal and County Health Officers in Charleston. The convention was under the direction of Dr. W. T. Henshaw and Dr. M. V. Ziegler, of the State Health Department.

Dr. W. B. Hunter of Huntington has gone to Boston where he will attend the Harvard post-graduate school for a month. Doctor Hunter plans to take a special course in the treatment of children's diseases.

Dr. A. W. Adkins has changed his location from Huntington to near Pikeville, Ky.

SOME SUIT

The International Magazine Co., William Randolph Hearst, Paul H. DeKruif and others have been made defendants in a suit for $1,600,000 damages, instituted by G. H. Sherman, M.D., of the Bacteriological Laboratories, Detroit, Mich., as a result of the fourth of a series of articles published in Hearst's International Magazine under the general title of "Doctors and Drug Mongers."

The petition, which was filed in the Circuit Court for Wayne County, Michigan, February 15, 1923, avers that the defendants "contriving and wrongfully and maliciously intending to injure, defame and destroy the good name and reputation of the plaintiff as a law abiding and order loving citizen of the State of Michigan and the United States of America, to injure him in his said profession of the practice of medicine; to bring him into public and professional hatred, contempt and ridicule and to deprive him of the gain and profits which he had received and would receive from the preparation and sale of the said prophylactic and therapeutic agents known as 'bacterial vaccines,' did wickedly and maliciously compose and publish in, towit, the said magazine, issued on or about the said date, a certain false, scandalous and defamatory libel of and concerning plaintiff..—O. S. M. J.

NEW AND NON-OFFICIAL REMEDIES

Mercurosal. — Disodiumhydroxymercurisalicyloxyacetate. Mercurosal contains from 43.0 to 43.8 per cent of mercury in organic combination. It is claimed that mercurosal is relatively free from irritant action, that it is eliminated without untoward effects on the kidney, and that the toxicity is relatively lower than mercuric chloride or mercuric salicylate. Mercurosal is intended for the treatment of syphilis. It is administered either intramuscularly or intravenously. Mercurosal is marketed in two forms: Mercurosal Intravenous, tubes containing mercurosal 0.1 Gm., and Mercurosal Intramuscular, tubes containing mercurosal 0.05 Gm. Parke, Davis and Co., Detroit, Mich. (Jour. A. M. A. March 24, 1923, page 844.)

Pneumococcus Antibody Solution, Types I, II and III Combined.—An aqueous solution of the specific pneumococcus antibodies, Types I, II and II in equal proportions, approximately free from the proteins of horse serum. There is some evidence that this antibody solution is of value in the treatment of lobar pneumonia.

Pneumococcus Antibody Solution, Types I, II and II Combined.—N. N. R., marketed in packages of one 50 Cc. double-ended vials with a complete intravenous outfit, and in packages of one 50 Cc. double-ended vials. H. K. Mulford Co., Philadelphia. (Jour. A. M. A. March 24, 1923, page 844.)

Sulpharsphenamine. — The salt, disodiumdiaminodihydroxyarsenobenzenedimethylenesulphonate, adjusted by the addition of inorganic salt to an arsenic content of from 18 to 20 per cent. The arsenic content of 3 parts of sulpharsphenamine is approximately equal to 2 parts of arsphenamine. The actions and uses of sulpharsphenamine are the same as those of neoarsphenamine, over which it is claimed to have the advantage of greater stability of solution in the presence of air and of permitting subcutaneous injection. For subcutaneous or intramuscular use the drug is dissolved in sterile, freshly distilled water in the proportion of about 0.1 Gm. to 0.3 Gc.; for intravenous use a greater dilution is desirable. (Jour. A. M. A. March 31, 1923, page 919.)

Sulpharsphenamine—Abbott—A brand of sulpharsphenamine—N. N. R. It is marketed in ampules containing respectively, 0.2 Gm., 0.3 Gm., 0.4 Gm., and 0.6 Gm. The Abbott Laboratories, Chicago. (Jour. A. M. A. March 31, 1923, page 919.)

Digitan Ampules (for Hypodermic Use).—Each Cc. contains 16 minims (1 Cc.) of a sterilized solution of digitan (see New and Non-official Remedies, 1922, p. 105), equivalent to digitan, 1½ grains (0.1 Gm.). Merck and Co., New York.

Digitan Solution (for Oral Use.—1 Cc. contains digitan (see New and Non-official Remedies, 1922, p. 105) 1½ grains (0.1 Gm.). Merck and Co., New York. Jour. A. M. A. Jan. 13, 1923, page 106.

Bacillus diphtheroid Allergen—Squibb.—Prepared from the protein from Bacillus diphtheriae.

Staphylococcus citreus Allergen —Squibb.—Prepared from the protein of Staphylococcus citreus.

Bacillus Influenzae Allergen—Squibb.—Prepared from the protein from Bacillus Influenzae.—For a description of the Bacterial Allergens—Squibb, see New and Nonofficial Remedies, 1922, p. 247.

Egg Yolk Globulin Allergen—Squibb.—Prepared from the purified globulin of yolks of hens' eggs.

Horse Serum Allergen—Squibb. —Prepared from protein of normal horse serum.

For a description of Food Allergen—Squibb, see New and Nonofficial Remedies, 1922, p. 241, E. R. Squibb and Sons, New York. (Jour. A. M. A., Jan. 27, 1923, p. 251.)

PROPAGANDA FOR REFORM

More Misbranded Nostrums.—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Vita Oil (Vita Oil Co.), consisting essentially of nonvolatile vegetable oil, mineral oil and volatile oils, including turpentine, clove and cinnamon oils with extractives of red pepper and pepper. Gold Medal Brand Sexual Pills (S. Pfeiffer Mfg. Co.), containing phosphorus and extract of damiana and nux vomica. Lovett's Pills (Dr. Lovett Medicine Co.), containing iron, sodium and calcium carbonates and sulphates with traces of plant extractives. Savanol (G. P. Steyh), capsules containing a saponifiable oil with traces of savin oil, apiol and aloin. Locock's Cough Elixir (I. L. Lyons and Co.), consisting essentially of extract of plant drugs, including ipecac and squill, small amounts of morphin, and acetic acid, sugar and water. Sex-Co. Restorative Tablets (Clyde, Collins Co.), containing strychnin, extract of dimiana, iron and phosphorous compound. Compound Tansy, Pennyroyal and Cottonroot Pills (Allan-Pfeiffer Chemical Co.), consisting essentially of iron sulphate, aloes and oil of pennyroyal. (Jour. A. M. A. March 3, 1923, page 645.)

Pan-Secretin Compound. — Harrower's Pan-secretin Compound, according to the advertising circular, is "an endocrine combination embodying: (1) a specially prepared extract of Islets of Langerhans (pancreas tail), rich in its incretory glycolytic product; (2) an acid extract of the duodenal mucosa containing the pancreatic activator secretion, and (3) a small dose of desiccated calves tonsil." This formula emphasizes the fact that some of the commercial houses are carrying us back to the days of the shotgun nostrum. It would seem hardly necessary to say that such a combination as Pansecretin Compound is unscientific, and there appears to be no scientific evidence to warrant the belief that such a combination is of value. Four years ago the Council on Pharmacy and Chemistry published a report on some of the Harrower "pluriglandular" mixtures and gave reasons why such unscientific combinations were not acceptable for New and Nonofficial Remedies. (Jour. A. M. A. March 10, 1923, p. 717.)

Peralga, a new German Synthetic. —For the past few years American physicians have been relatively free from the propaganda of the foreign

synthetic drugs—real or alleged. Recently, however, there have been signs of revival of this type of product. One of the products being endowed with the halo of creative chemistry, is Peralga (Schering and Glatz), known in Europe as Veramon. The product is claimed to have been originated in the pharmacologic laboratory of Professor Starkenstein, University of Prague (who has lent his name to a number of statements valuable to the proprietary interests). Peralga is claimed to be a definite chemical compound, made by heating a mixture of barbital and amidopyrin, and it is claimed that this compound is absorbed without being split up into its component radicles. The A. M. A. Chemical Laboratory investigated Peralga. The examination developed that Peralga is not a definite chemical compound as claimed, but essentially a mixture of barbital and amidopyrin, containing an impurity produced in the fusion of the mixture. To determine if Peralga will produce any effects different from a mechanical mixture of barbital and amidopryin in the same proportion, a specimen of Peralga and a mixture of barbital and amidopyrin in the same proportion as in Peralga was sent to the Pharmacologic Laboratory of Conell University Medical College for comparative tests. The summary of the laboratory report was: "We can see no difference in the behaviour of cats towards similar doses of the two preparations; the mechanical mixture in the A. M. A. Chemical Laboratory and the preparation of Schering and Glatz—and they show very little difference between similar doses of barbital and those contained in Peralga. Of course there is no chance of making observations on cats that would show analgesic actions in headache. But since the observable effects on cats are so nearly identical, it is only fair to presume that the 'synthetic' and the mixture are practically alike in action." (Jour. A. M. A. March 31, 1923, page 942.)

Prescribing Codein.—Codein is a derivative of opium and hence prescriptions for it come within the pervue of the Harrison Narcotic Act, no matter what the individual physicians may believe in respect to its habit forming properties. (Jour. A. M. A. March 31, 1923, page 945.)

Biologic Reactions of Arsphenamin.—The complexity of the physical and chemical properties of arsphenamin probably accounts for the complexity of its biologic reactions resulting for the passage through the body. Among the most disturbing of these reactions are the nitritoid or anaphylactoid symptoms occurring after intravenous injection. The earlier studies of the anaphylactoid reactions from arsphenamin cleared up certain features, but left the underlying causes untouched. The investigations of Jean Oliver and his collaborators lead to the conception that arsphenamine can exist in the colloidal state temporarily at least, and that the temporariness of this state is essential to anaphylactoid reactions. The investigators find that arsphenamin has a fairly constant agglutinating titer for blood corpuscles. The presence of electrolyte is essential for agglutination. The work suggests that agglutination by arsphenamin occurs during the transition stage from its colloidal into the crys-

talloidal state in the circulation, and that stabilization in the colloidal state prevents the agglutination. From their work they conclude that there are two phases to the reactions from arsphenamin: (1) the early or physical phase, which is concerned with the physical properties of the agent and results in the corpuscular agglutination with multiple embolism, the outcome being fatal sometimes, and (2) the later or chemical phase that results in parenchymatous degeneration of viscera (kidney and liver), this being due to the action of the arsenic ions in the usual way. (Jour. A. M. A. March 31, 1923, page 920.)

MEDICINE AND SURGERY

TUBERCULAR DON'TS

"Don't think that medical supervision is not just as important for the tuberculosis patients as for typhoid patients. It is.

"Don't think that climate is the most important thing in the treatment of tuberculosis. It is not.

"Don't think, however, that a change of climate is not an important aid to cure. It is.

"Don't think that milk and eggs are a specific in tuberculosis instead of merely being body builders. There is no specific.

"Don't think that you can get 'away with it' unless you go to bed until all fever is gone. You can not.

"Don't think that you need fear a draught of fresh air if your body is properly protected by clothing. Be an outdoor fan.

"Don't thing that there are better tonics for a tuberculosis body than rest, fresh air and good food. There are not.

"Don't underestimate the tubercle bacillus. It doesn't pay.

"Don't think because your temperature is normal and you weigh more than ever before in your life, that you are cured. You are not.

"Don't thing you do not have to live carefully just because you have left the sanatorium. You do.

"Don't think that you can be careless about the disposal of your sputum and play the game fair. You can not.

"Don't think because you have tuberculosis you can not be of use in the world. Think of Trudeau.

"Don't think you will not need patience. You will.

"Don't think tuberculosis can be cured quickly. It can't be done.

"Don't think you are putting it over on the doctor if you don't play fair. It works both ways.

"Don't thing that the doctor is too busy to answer questions. He is not.

"Don't think the other fellow is worse than you and be afraid of him. Perhaps he's not.

"Don't think the other fellow isn't anxious to help you get well. He is."—Texas State Journal of Medicine.

EARLY RECOGNITION AND ECONOMIC ASPECTS OF HEART DISEASE

Robert H. Halsey, New York (Journal A. M. A., April 7, 1923), directs attention to the survey recently completed by the Association for the Prevention and Relief

of Heart Disease of ten hospitals of New York City, having 7,799 beds, representing nearly 25 per cent of the hospital beds (32,000) of the city), which showed that 4,831 patients were cared for, requiring 244,521 bed days, or nearly 10 per cent of the total capacity (2,836,635 bed days) of those hospitals. The average daily cost was $2.69, and amounted to a total of $658,379.10, an average cost for each patient of $1,961.17. Nov. 1, 1922, there were registered in forty-three cardiac clinics in New York 5,904 patients, or approximately 25 per cent of the patients visiting all the outpatient departments of the city in one month. This proportion is somewhat larger than one person in every thousand (0.1 per cent) of the total population of New York City, 5,751,859, who are under special care for organic heart disease. This group represents an economic loss of at least $600,000, and, considered with the group cared for in the hospital beds, shows that New York City had a known loss or expense of $1,250,000 last year. This does not consider loss from impaired productivity because of unrecorded or unrecognized heart disease. The care of ambulant and bed patients with heart disease costs a large outlay in actual funds each year. Halsey urges that there is need of more education of the laity and of the profession to procure a periodic examination of the sick and the well. A program must be devised which all public health agencies, correlated and coordinated, can execute without duplication of effort. With a promising program, the community can and undoubtedly would give its support.

ORIENTAL SORE (CUTANEOUS LEISHMANIASIS) IN THE UNITED STATES

Robert A. Lambert, New Haven, Conn. (Journal A. M. A., April 7, 1923), warns that early recognition of this lesion is particularly important, if the establishment of the disease in the United States is to be prevented. The two cases of oriental sore in the United States reported by Lambert make a total of ten cases recorded in the last two years. There is a possibility of a long incubation period. In one of the reported cases, the lesion did not appear until three months after the patient's arrival in the United States, and probably eight months after infection. Biopsy is advocated in suspected cases, the specific protozoa (Leishmania tropica) being more readily demonstrable in properly stained sections than in smears.

THE LIFE INSURANCE VALUE OF GRAPHIC HEART RECORDS

C. Calvin Smith, Philadelphia (Journal A. M. A., April 7, 1923), asserts that it is possible, by electrocardiography, to detect heart affections that cannot be recognized by any other method of examination. Thus, electrocardiography is of importance in any life insurance or other examination in which a knowledge of the physical fitness of the individual is of first consideration. There are certain pulse irregularities that are not an evidence of heart disease, and graphic records that establish the physiologic character of such irregularities are additional warrant for the acceptance of the applicant for insurance. The heart can protest, symptomatically and physically, against

the effect of toxins without being structurally diseased, and such heart protests will often disappear on removal of the cause, thus rendering the applicant insurable. The routine employment of cardiographic investigation will prevent economic losses to insurance companies in three ways: (1) by determining the innocent nature of certain pulse irregularities which might be considered cause for rejection by those insufficiently trained in modern cardiology; (2) by furnishing written evidence that a remediable heart fault has been corrected, and (3) by furnishing definite, indisputable evidence of structural heart muscle defect that is impossible of determination by any other method of examination.

PARTIAL OBSTRUCTION AT DUODENOJEJUNAL JUNCTION AS CAUSE OF ULCER OF DUODENUM

Since 1911 E. P. Sloan, Bloomington, Ill. (Journal A. M. A., April 7, 1923, says he has demonstrated fifty-two times at operation that duodenal ulcer and partial obstruction at or near the duodenojejunal flexure were present at the same time, and that surgical relief of the partial obstruction permitted the duodenal contents immediately to pass freely down into the jejunum. This makes, with the two cases reported in this paper, fifty-four cases. In fourteen, a definite jejunomesocolic band was present. In ten, veils or light adhesions, seemingly of inflammatory origin definitely kinking the jejunum near its origin, were found. In nine, the obstruction was due to the irregular shape of the opening through the mesocolon or to the ligament of Treitz. In six of them the duodenum was ptosed to such an extent that a very acute angle was formed at its terminal portion. In fifteen cases the obstruction was due to more than one of these causes. These fifty-four cases of duodenal ulcer in which gastro-enterestomy was not done were selected from a series of 264 consecutive cases of duodenal ulcer. In the other 210 cases, gastro-enterostomy was done.

DEFECTIVE DIET AS CAUSE OF STERILITY

The theorem advanced by Donald Macomber, Boston (Journal A. M. A., April 7, 1923), is that the fertility of a mating could be expressed as the product of the fertility of the individuals concerned, and that if this mating fertility is below a certain level, which is termed the threshold for reproduction, no young would result, but that if it was above this level the mating would be positive. The nature of the diet had a distinct bearing on fertility. The effect of diet on inbred animals was to reduce fertility, and to increase the amount of sterility. The kind of dietary deficiecy is not important. It seems rather to be the degree, since, the greater the deficiency, the larger the proportion of sterility. The way in which the diet seems to affect sterility is through its general effect on the health of the individuals. The less the effect on health, the less on the average the effect on fertility. There may be great individual variation in fertilities. Such variation is increased by inbreeding and by deficient diet. When the variation is great, the amount of

sterility is also great. There are individuals whose fertility is so low that they are unable to reproduce with one another, but whose fertility remains sufficiently high to allow immediate and successful reproduction with highly fertile individuals.

HYPERTENSION HEART

Whereas the death rate from epidemic diseases in consequence of knowledge of their pathogenesis has on the whole been falling, the death rate from chronic diseases, notably cancer and heart disease, George Edmeston Fahr, Minneapolis (Journal A. M. A., April 7, 1923), points out has been rising, 124,000 persons having died of organic heart disease, exclusive of acute endocarditis and pericarditis, in 1920. Heart disease has now become the leader of the forces of death. If we are to prevent heart disease in the future, or even increase the expectancy of persons having this disease, we must increase our knowledge ot the factors concerned in its production. In this paper Fahr attempts to prove that hypertension is the most important factor in the etiology of chronic heart muscle disease. No one has ever produced experimentally by inoculation with microorganisms cardiac hypertrophy and interfascicular and intrafascicular fibrosis, the most common histologic changes in so-called chronic myocarditis. Fahr, therefore, believes that there are no good grounds for assuming that chronic infections are the most important or the primary etiologic factor in the production of chronic heart muscle disease. He examined the records of 142 cases diagnosed "myocardial insufficiency" or "hypertrophy and dilatation of the heart" and found that 109, or 75 per cent, had a systolic blood pressure record of 170 or over, and a diastolic pressure of 100 or over. About 10 per cent of these cases, came to necropsy and showed marked increase in weight of the heart, largely due to left ventricular hypertrophy. Despite the fact that many of Fahr's patients are in the earliest stages of hyperpiesis, 75 per cent of them show definitely dilated hearts on accurate roentgen-ray examination. About 30 per cent show mild or severe degrees of heart failure, as dyspnea on exertion, edema of the lower extremities, winter cough, paroxysmal attacks of cardiac asthma, enlarged liver, and angina pectoric. Not 5 per cent show marked renal insufficiency at the present time. It looks very much as if the greater majority of these patients are destined for a death from heart failure. At least 75 per cent of all hearts diagnosed "chronic myocarditis," "myocradial insufficiency," or "myocardial degeneration" show the "sabot" shaped type of heart. Fahr is convinced that at least 75 per cent of all chronic heart muscle disease unassociated with valve defect is due to hypertension. Chronic or acute infection plays a minor role in the production of heart muscle disease. Acute infection is an adverse factor in chronically weakened hearts. Approximately 50,000 persons in the United States die of hypertension heart every year.

SUBCUTANEOUS IMPLANATION OF THE HUMAN OVIUM

George L. Streeter, Baltimore (Journal A. M. A., April 7, 1923), relates the case of a woman, aged 25, who exhibited a mass the size of a cherry at the upper end of a scar from a previous operation. A provisional diagnosis of wound-hernia was made. Two weeks later the swelling had doubled in size, and on account of its rapid growth an exploratory examination was decided on. By that time the enlargement had reached the size of a hen's egg. Operation disclosed, just beneath the skin, embedded in the superficial fascia, a relatively thin-walled and partially transparent cyst, which on removal proved to be an intact chorionic sac, and on being opened was found to contain a well-formed embryo. No opening through the deep fascia or connection with the abdomen could be found. Nor was there any enveloping capsule or any structure other than is normally present in the abdominal fascia, although there seemed to be some enlargement of the blood vessels leading to the area of implantation. On searching for an explanation as to how the ovum was able to reach this site, it was learned that two years previous another surgeon had performed a ventral fixation of the uterus, adopting the procedure in which the round ligaments are pulled through the rectus muscles. As it is possible to mistake the fallopian tube for the round ligament, it is supposed by Streeter that either this mistake was made or that the tube was drawn through the rectus muscle along with the round ligament. He asserts that no case has ever before been reported in which the human ovum became implanted and underwent development entirely outside the abdominal cavity, as happened in the instance described.

THE SCOPE OF THE ROENTGENOLOGIST'S REPORT

In the opinion of Charles D. Enfield, Louisville, Ky. (Journal A. M. A., April 7, 1923), the ideal roentgen-ray report should present a careful and accurate description of the picture seen. It should offer whatever explanation of variations from the normal that may be conservatively given on a basis of established roentgen pathology. It should give, when this can be conservatively done, an estimate of the activity and present importance of the lesion, such estimate, however, to be derived entirely from the roentgen signs. It should place in the hands of the clinician all the information the roentgenologist has been able to obtain by his peculiar method of examination, and should offer it in such form as will most facilitate the correlation of the roentgen and clinical evidence.

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THE PRESENT STATUS OF DIABETES

Read Before Raleigh County Medical Society, Beckley, West Virginia, March 1st, 1923

By WALTER E. VEST, M.D., F.A.C.P.
Huntington, W. Va.

Metabolism, normal and abnormal, has been more thoroughly studied during the last decade than at any time in the history of medicine. This has been due to the development of the science of Biochemistry, and especially to those phases of it we speak of as blood chemistry and basal metabolism. However, despite these advances, and they are far-reaching, the present state of our knowledge of this general subject is far from perfect, so far, in fact, that we might adapt Sir Isaac Newton to the effect that we are playing on the seashore of metabolism, picking up here and there a pebble but that the great ocean of metabolic truth lies undiscovered before us.

Not the least interesting chapter in the romance of metabolism is that on carbohydrates, and unquestionably this chapter is less obscured in the gloom of uncertainty than are those on the other foodstuffs. This is probably due to the fact that carbohydrates are chemically less complex bodies than are fats and proteins.

The question of whether diabetes is on the increase or not has been raised. Certainly we see more cases now than were formerly reported, but this may partly be due to more careful examinations and better means of diagnosis. When we consider, however, that pancreatic overload is a prominent factor in diabetes, and that the use of refined sugar in the United States has been steadily increasing until now the annual per capita consumption exceeds one hundred pounds, or approximately five ounces daily for each Amercian man, woman and child, it is probable that the apparent increase is largely real.

When Allen announced his theory of starvation and pancreatic rest, the first great step in the control of diabetes was taken. While certain modifications of his original views have been made, the principle of lessening the strain on the mechanism of carbohydrate metabolism remains the foundation stone of the dietetic management of this disease. Briefly put, this treatment consists of withholding food from the patient until the urine is sugar-free and then beginning with vegetables of a low carbohydrate content and building up the diet to the point where comfortable living is possible and the usual occupation can be followed, the patient meanwhile remaining sugar-free. Obviously this necessitates careful study of the individual patient, and a recognition of the fact that each separate diabetic is an individual problem.

Very recently, Newburgh and Marsh have modified the dietetic treatment so as to give a comparatively high fat diet. In a recent article they report their work; and their conclusions are as follows:

"A diet of 900 calories derived chiefly from fat produces the same fall in the basal metabolic rate as does fasting. It is preferable to fasting in that it is more successful in desugarization and is less dangerous. A low protein, low carbohydrate, high fat diet maintains an aglocosuric state; is not attended by acidosis, maintains nitrogen balance; does not cause hyperlipoidemia and results in a return of blood-fat to the normal in those patients in whom it was present on admission to the clinic. Moreover, its use avoids the evils of undernutrition; permits activity compatible with earning a living, and is attended by downward progress in uncomplicated cases."

The recent work of Banting and McLeod and their co-workers in the University of Toronto is of tremendous moment in the management of diabetes, apparently surpassing in importance the contribution of Allen certainly as far as the severe and complicated cases are concerned. These gentlemen have succeeded in isolating an active principle from the pancreas which they call Insulin. Ever since it has been known that the pancreas controls carbohydrate metabolism, attempts have been made to treat diabetes with extracts from this gland, all of which have been notoriously unsuccessful. The Toronto workers have apparently shown that the reason for these failures has been the fact that heretofore the portions of the gland giving rise to the external secretion have not been excluded in preparing the products used. They assume that this portion of the gland produces a principle which when used together in some way offsets or neutralizes the action of the insulin. Accordingly, by ligating the ducts, they succeeded in causing what might be called a disuse degeneration of all the gland except the islets of Langerhans, and from this pancreatic residue insulin was secured.

While Dr. MacLeod is very guarded in his statements as to what we may expect from insulin, it seems practically certain that the following points are established facts:

(1) A pancreatic hormone actually exists;

(2) It is produced in the islets of Langerhans;

(3) This principle, or an extract, can be made in stable form.

Also, we seem justified in reach-

ing these conclusions as to the characteristics of insulin:

(1) When injected into the body, it is capable of reducing the blood-sugar percentage;

(2) Its clinical use in human diabetes tends to the reduction of blood-sugar, glycosuria and acetonuria;

(3) It can be definitely standardized as to potency;

(4) It can be used hypodermically;

(5) When given in an overdose to animals and in man it produces grave toxic symptoms.

Obviously many obstacles are to be overcome in the manufacture of insulin on a commercial scale. Accordingly, the process has been patented by the University of Toronto and no product wlil be allowed to be marketed unless its method of preparation is correct and its potency standardized. No individual will profit from the patent, and any surplus accumulated will be used in further research. As to whether insulin itself maintains the blood sugar level, there is grave doubt. Experimental workers at the Mayo Clinic have been able to remove the liver from dogs and this experiment has been followed by a fall in blood-sugar percentage and toxic symptoms closely approaching those resulting from an overdose of insulin. If, however, glucose is injected intravenously, the toxic symptoms promptly disappear and the animal resumes a normal appearance. If the normal blood sugar level is artificially maintained, for some time the dog appears all right, but later dies from a totally different train of symptoms. It would seem, therefore, that the liver is in some way the guardian of the blood sugar level.

In a recent personal letter, Dr. Frank Mann, of the Mayo Foundation, gives me his views as follows:

"In the hyperglycemia following pancreatectomy, the liver is the responsible agent for maintaining the high blood sugar level. That is, in both the normal animal and the animal made hyperglycemic by removal of the pancreas, the liver is essential for the maintenance of the blood sugar level. Just in what way this new work on insulin will necessarily influence our views in relation to this function of the liver cannot at present be stated. However, I feel that the liver is certainly the primary agent in maintaining the blood sugar level, and that fluctuations in blood sugar must usually be due to a direct or indirect action on the liver."

The interrelationship among the endocrines and the influence of each on the blood sugar level has not been definitely determined, but at least some of the endocrinopathies influence the blood sugar percentage certainly as far as glucose tolerance is concerned. Gray, of Boston, has recently shown that persons suffering from liver disease have not only a high level, but a delayed rise in the level after a tolerance test. Also he reports a fairly high level in both hypo and hyperthyroidism, findings not entirely in keeping with what might be called orthodox views on the subject. Also he finds in dippituitrism a moderately high level and a late rise after the ingestion of the standard dose of glucose.

Stengel, after considerable experience with the homrone concludes that insulin is indicated in only twenty percent of diabetics, the other eighty percent being amenable to dietetic treatment alone. He

uses it in the following classes of cases:

(1) Diabetic Coma;

(2) Severe cases which are going progressively downward;

(3) Long standing cases which have become nervous and are under-nourished from dietetic treatment;

(4) Preoperative treatment of surgical diabetics.

In addition to this list, we would add:

(1) Diabetic children;

(2) Tubercular diabetics.

Just what the diabetic tomorrow will be remains to be seen. Uncontrolled newspaper reports have caused an influx of these unfortunates into Toronto and more are said to be there now than the University can furnish insulin for. Banting himself doubts whether insulin will replace dietetics, but believes it probable that a combination of the two will prevail. This view is a sensible one, and will most likely prove correct. Moreover, it is probable that Newburgh's high fat diet will replace the standard Allen diet.

SPONTANEOUS VERSION AND SPONTANEOUS EVOLUTION

Read Before Raleigh County Medical Society, April 5, 1923

By DR. U. G. COOK, Beckley

Spontaneous version obtains in a case in which a transverse foetal position is spontaneously converted into a longitudinal position after labor has begun, in which case the delivery may be effected normally.

This is perhaps a far more frequent occurrence than clinical reports and clinical experience would indicate,, since a large percent of confinement cases are not seen until labor is far advanced.

Spontaneous evolution is a transverse position which fails to be converted into a longitudinal position, the fetus being driven downward doubled upon itself and is expelled through the parturient canal in this transverse and doubled position.

This event is one of seeming physical impossibility, and by some authorities is declared to be so, especially if foetal and maternal proportions are both normal.

But that such cases do occur under certain conditions is beyond question. Yet it is never to be relied upon as a method of treatment.

The primary cause of the malposition is obscure. It depends, doubtlessly, upon varying etiologic factors which we cannot here discuss.

But the final and determining cause of this disastrous condition is always lack of proper treatment early in the case.

The occurrence of spontaneous evolution is not nearly so frequent now as in earlier days when most of the confinement cases in the rural districts were in the hands of incompetent midwives, when the services of efficient obstetricians could not be procured. But in these days of advanced obstetrical skill, with the increased number of qualified physicians throughout the country, with the improved telephone and telegraph facilities, together with the present day means of conveyance, it seems that a case of spontaneous evolution should seldom if ever occur.

I think the present day skepticism upon this subject, and the fact

that it has almost disappeared from medical literature is due to the fact that the material from which the literature is produced is under circumstances which are adequate to its care, and under such circumstances the practitioner should never have opportunity to see a case.

It was my unhappy lot to encounter two cases of spontaneous evolution 25 and 30 years ago, the first of which was the third case of confinement that I had ever attended.

The patient was a rather robust but flabby 16-year-old primipara.

When I was called to the case she had been in active labor for two days, in the hands of an ignorant mid-wife.

I found the right hand protruding in a left dorso-anterior position. As the nearest doctor I could call to my assistance was 14 miles away and the only means of conveyance being on horseback, I attempted to perform version myself. Under complete chloroform anesthesia I succeeded in carrying the shoulder above the brim of the pelvis and repositing the arm, when a firm tonic contraction fixed the body of the fetus in that position, from which after long and repeated efforts I was unable to remove it in any direction. Despairing of success I abandoned the maneuver, allowing the patient to recover from the anesthetic. I called the husband aside, directed him to mount a horse and hasten the 14-mile journey for the other doctor. While writing a note to the doctor I was suddenly called to the bed-side, finding the patient having severe pains. Examination revealed the right latteral lumbar region of the fetus crowded tightly down into the pelvis, the pains continuing violent and almost unabating until the fetus was driven through in that doubled position. A 10- or 12-pound babe, dead of course. But the mother, uninjured, made an uneventful recovery.

The impossible and astoundingly unexpected event did materialize, every minute of which time I expected a fatal accident.

Case No. 2 was the second child of a pair of twins, the first of which being born, I tied and cut the cord and delivered it to the nurse. Meanwhile the pains continued. On examination I found the right latteral lumbar region of the second fetus crowded tightly down into the pelvis in the right dorso-anterior position, same position as case No. 1. After a few minutes of almost incessant pains it was driven through in that same doubled position. Mother was uninjured and the babe lived. This case was not so astounding, as the babe was small and the way having been prepared by the exit of the first child.

Cases of miscarriage prior to about the sixth month or cases in which the foetus has been dead for some time can not be classed as cases of spontaneous evolution, as they can not be said to have any definite position or presentation.

REPORT OF A CASE OF SYPHILIS

Read Before Raleigh County Medical Society, April 5, 1923

By E. S. DUPUY, M. D., Beckley, W. Va.

The following case of syphilis is of enough interest, I think, from a clinical standpoint, as well as from history, to bring before this society.

Personal history. The patient is a white woman, age 41 years; has been married 22 years; was born in Kentucky and lived there 26 years. She lived in Florida one year, Virginia 2 years, and West Virginia the remainder—the past four years in Beckley. She commenced to menstruate at age 17 years. Has five children, the last one eleven years old, all living and healthy. Had one miscarriage after the last baby, of two months duration, cause not known. Had malaria in 1911 while living in Kentucky, and was sick for 6 months. Had measles and influenza three years ago. Patient complains of menstruation being irregular, every two weeks, and sometimes stays on her as long as 42 days. Has had a white vaginal discharge for 10 or 15 years. No ulcers in vagina, no sore mouth or sore throat.

Family history. Father and mother both living; father suffers from rheumatism and neuralgia, was never healthy. Mother had abscess of lungs. She has two brothers and five sisters, not any of them healthy. One brother had spinal trouble. One sister had epilepsy up to 14 years of age. One sister has hysteria until she was 28 years of age.

Present complaint. Her present trouble started in April 1922, when she suffered from symptoms resembling a bad cold. She called a local mine physician, who diagnosed influenza, was in bed three days, but did not fully recover from the illness, and in September of the same year sent for the same doctor who diagnosed appendicitis. A consultant was called from Beckley, who diagnosed left tubal trouble, and advised immediate operation. This was not consented to. On October 15 I was called and found the following condition: Patient was well nourished, rather fleshy, and had a good color. Her chief complaint was headache, which she described as being in the middle, back and top of the head. She had some fever, and the pulse and respiration were accelerated, but not in proportion to the fever. Her heart, lungs, bowels and pelvis were negative on examination. Her systolic blood pressure was 125, diastolic 75. Patient had no chills, nor sweats, except when I would give her aspirin for the headache, then she would perspire. She had no diarrhœa, her stools being well formed most of the time. On October 22 a trained nurse was called on the case, and her chart running up to November 13 records the following symptoms: Patient was nauseated quite a good deal, and vomited at times. Her temperature ran from 100 F to 104 F but with no uniformity; it resembled a septic or malarial type. Her pulse varied from 80 to 104 per minute, and the respiration from 20 to 36 per minute. At times patient complained of chilly sensations, but had no distinct chills, and had only one sweat except when she had taken aspirin. She had several nose bleeds, and had slight cough, and complained of pain in left chest. Her stools were at times liquid, were green and yellow, and contained some curds, but most of the time were formed. There was no tympanites. I made a tentative diagnosis of typhoid fever, and treated her accordingly, but not being satisfied, called a laboratory man, who reported the following: Urine cloudy, color amber, acid reaction, Sp. Gr. 1024, a trace

of albumen, no sugar. Acetone positive, no bile, no indican, a few pus cells, no blood, urates present, and an occasional hyalin and granular cast. Red cells 5225000, white cells 8600. Hemoglobin 80 per cent, color index 78 per cent. No malaria plasmodia. Widal negative. Wasserman four plus. This was made on October 24. The patient was immediately put on ¼ gr. prot-iodide of mercury four times a day, and 30 drops of K. I. and soon she commenced to improve. On October 29 I called a consultant, owing to the fact that it was an extraordinary case. His diagnosis was typhoid fever (without the symptoms) and advised vaginal douches for the discharge. The laboratory report, and the following in Osler's practice of medicine made the diagnosis for me:

Acquired Syphilis. Secondary stage. The first constitutional symptoms are usually manifested within three months of the appearance of the primary sore. They rarely develop earlier than the sixth or later than the twelfth week. The symptoms are: Fever, slight or intense, and very variable in character. A mild continuous pyrexia is not uncommon, the temperature not rising above 101 F. The fever may have a distinctly remittent character; but the most remarkable and puzzling type, which is very apt to lead to error in diagnosis, is the intermittent syphilitic fever. It may come on within a month after exposure and rise to 104 F. to 105 F. with oscillations of 5 or 6 degrees (Yeo). A remarkable case is reported by Sydney Phillips, in which pyrexia persisted for months, with paroxysms resembling in all respects tertian ague, and which resisted quinine and yielded promptly to mercury and potassium iodide. Although usually a secondary manifestation, the fever of syphilis may occur late in the disease. Practitioners are scarcely alive to the frequency and importance of syphilitic fever. Janeway has called attention to the case in which the diagnosis of pulmonary tuberculosis has been made.

The nurse was discharged on November 13, the patient's temperature having been normal 7 days. You will note that the fever only lasted about two weeks after I put her on mercury and potassium iodide. I gave her one dose of mercurosal, but she refused to take the second, and would not take 606. I have since kept her on prot-iodide of mercury and potassium iodide. She was in my office on March 28, 1923, and is looking well. I expect to keep her under observation and treatment, from time to time, quit the medicine for a month or more, and have a Wasserman blood examination made.

FOCAL INFECTIONS

Read Before Raleigh County Medical Society, April 5, 1923

By W. T. RIFFE, D.D.S., Beckley, W. Va.

Twenty years ago the man who would claim that an abscessed tooth could be the direct cause of an attack of rheumatism in the big toe, would have to dodge quickly, to avoid being hailed into court on a lunacy charge. We now know that not only may these "focal infection points" at the root of the teeth and around infected gum margins cause rheumatism, but that they are also

a factor in causing thousands of cases of Bright's disease and diabetes, diseases of the gall bladder and the respiratory passages, and gastric and duodenal ulcers.

It was formerly thought that the evil results from focal conditions such as dental abscesses and pyorrhea were due to the absorption of the poisonous substances formed by the bacteria both living and dead—and the dead infinitely more than the living.

But now we know that these organisms and their toxic debris, while being carried through the circulation, may, in addition to their inherent capacity for poisonous mischief, also cause a mechanical obstruction of the circulation—blocking up some of the finer blood vessels—thereby impairing the nutrition of such structures as the joints, which haven't much vascularity—in other words, in which the blood circulation is deficient.

Chronic rheumatism is a manifestation of this type of action, which may be characterized by swelling and inflammation of the joints, or which may result in actual deformity and enlargement of the joints.

The relation of infected teeth and rheumatism was first demonstrated by Dr. T. W. Hastings in 1914, and is considered to be one of the most significant discoveries of modern times. In fact the very modernity of these findings will show why the general public has not yet become more familiar with this important work—although this fact does not in the slightest detract from the paramount importance of the principle.

The poisoning of the blood by these organisms also poisons the nerves, producing headaches, neuralgias and nervous symptoms, as well as neuritis and other inflammatory or irritated conditions of the nerves.

The liver, unable to cope with the extra tonicity of the blood stream, develops chronic congestion, or torpor. It fails properly to strain the poisons out of the blood and we become "bilious" and lethargic, lacking in ambition. Sleep fails to refresh us as it should. Food does not digest so well. The bowels become sluggish and inactive—increasing the general toxic condition and adding to the debility and lack of tone. Or the liver may ultimately become hardened and atrophied.

And similar ill effects may befall the kidneys or the pancreas, resulting in nephritis (or Bright's disease) or diabetes—if not directly due to germ activities, in any event to their ultimate effects.

Frequently the germ which originated in decaying teeth or in focal infection points in the oral cavity develops "secondary foci" in the lungs, blood vessels, and other organs, which may be the cause of far more serious trouble than the original infection in the mouth.

Dr. Barker of Johns Hopkins University has reported a number of cases of prenicious anaemias (for which, hitherto there had been thought to be no cure), which cleared up after the extraction of infected teeth.

Appendicitis, according to Frank Billings is usually caused by a strain of the streptococcus group of germs from a mouth or throat focus.

The primary focal points, where the germs make their initial bow to their unfortunate possessor, is a sort of culture tube for improvising

the strain of bugs by cross-breeding, as it were. For. Dr. Rosenow has shown that in the mouth, tooth sockets, middle ear, and cavities of the bones of the face and head communicating with the nasal chambers —together with the tonsils—the most dangerous infection germs are the pneumonia germs and the streptococcus, or pus—forming germs found in a number of forms of blood poison.

Dr. Miller has estimated that there may be three billion bacteria in a neglected mouth—and almost sixty different varieties of these. In a mouth like this it wouldn't matter much whether food be pure or not. For no kind of adulteration or disintegrated food could be any worse than the stuff the individual owning this mouth will finally swallow, after properly mixing with tooth pus and a few million of his favorite bacteria.

So, decayed teeth may develop diseases of the eyes and ears, the hollow bones of the face and head, ulceration of the tonsils and enlargement of the glands of the neck, and "heart disease" produced by the formation of scar tissue on the valves of the heart, or by inflammation of its lining membrane, has been traced to infection arising from the mouth, while almost every other disease of an infectious nature has been demonstrated to have its source in some process of decay originating in the oral cavity.

Among cases treated by Dr. Malcolm Goodrich, an acute rheumatism had existed for three months, which condition absolutely incapacitated the man from any activity. The suffering of this patient was so great that he had to be carefully watched day and night to prevent suicide. Every joint in his body was involved in the inflammatory process, even his face and arms were swollen. He had not slept for more than three weeks, except under the influence of opiate. Every conceivable form of medical treatment, including hot air baths and electricity had been employed on him without avail. Yet after the extraction of three necrosed roots this man within ten days was so far recovered as to be able to return to his business, and is today in perfect physical health.

A case of double astigmatism was relieved instantly following the removal of a root imbedded in the gum tissue under an old bridge.

There are hundreds of such cases on record, showing where sight has been improved, rheumatism and headaches cured, nervous wrecks repaired, sallow complexion cleared up by dental treatment.

While there are literally hundreds of such cases proving beyond the question of a doubt that many of the greatest systemic conditions, having apparently not the slightest connection with teeth, are due simply and solely to infections arising from dead teeth, teeth improperly treated or that should have been extracted years before.

To many these statements may seem rather exaggerated. I have tried to show that the conditions produced by focal infections are even more far reaching than are at present generally believed, and to show also that the problem concerns the physciian equally with the dentist, and that both physician and dentist should work hand in hand in the effort to overcome the grave

results of these degenerating conditions.

In any event if everybody in the world could realize the importance of this big question of focal infection, and take steps to correct the evil, one of the principal of all the causes of misery, suffering, and early death would be avoided, and through the combined efforts of dentists, medical men and scientific investigators this now seems likely to be brought about.

POST HEMORRHAGIC LEUKOCYTOSIS

RICHARD E. STIFEL, M. D.
Cleveland, Ohio

The diagnosis of internal hemorrhage after injuries, after abdominal operations, from bleeding peptic ulcers and from ruptured ectoptic pregnancies is often difficult and perplexing. It remains to be seen whether practical value will result from the interesting observation of Cannon that the characteristic of blood in shock, for shock and internal hemorrhage are easily confused, is a high red cell count in the capillary blood as opposed to the lower red cell count in the venous blood. The venous count may be normal. The difference in the red count between blood taken from the lobe of the ear and blood taken from the arm vein may be as high as two million cells per cubic millimeter.

Otherwise little light has been thrown on the subject of the diagnosis of internal hemorrhage since Hemorrhage and Transfusion by Crile appeared in 1904. Experience has taught everyone not to lay much stress on single blood examinations. Crile laid stress on the primary symptoms of acute hemorrhage, namely the physical evidence of loss of blood volume such as pallor, shrinkage of face and hands, increased pulse rate with diminished pulse volume, and altered respiration as well as a rising white blood cell count.

In 1917 I had the opportunity of observing how important a rising white blood cell count may be in the diagnosis of internal hemorrhage. A man age 22 (L. H. 58795) was brought to Lakeside Hospital with the history that a wheel of a truck had passed partly over his body. Largely on the basis of the white blood count which on admission was 10,000 but which steadily rose to 40,000, Dr. C. A. Bowers made a diagnosis of internal hemorrhage which he confirmed at operation one and a half hours after the injury. The bleeding was from a ruptured spleen. I shall not record the operation. The patient recovered. Certain questions at once arose in my mind regarding the nature and etiology of post-hemorrhagic leukocytosis which I shall take up in this paper.

In 1916 Dold described experimental leukocytosis following hemorrhage in dogs. The height of the leukocytosis was reached in eight to twenty-four hours and it subsided by the end of the fourth day. He believed it important in the diagnosis of internal hemorrhage. He ascribed it to absorption of leukocyte attracting products from the disintegration of the extravasated blood. This view however overlooks the fact that leukocytosis follows external as well as internal hemorrhage. Crile observed thirteen donors of blood for transfusion; in twelve there was an increase in

the white blood count, in two of these but a slight increase and in one a fall in the white count.

Working with rabbits I found that hyperleukocytosis typically follows hemorrhage whether the bleeding is external or into the peritoneal or pleural cavity. However, very severe internal or external hemorrhage may be unaccompanied by leukocytosis. Rabbits bled by heart puncture, a simple and safe way to bleed the animals under ether anaesthesia, are often without leukocytosis until ten to twenty hours after the bleeding. Goldscheider and Jacobs showed in 1894 that shock in rabbits caused a leukopenia. Crile has emphasized the leukopenia of shock compared with the leukocytosis of hemorrhage in man.

When rabbits are bled from the ear veins without anaesthesia leukocytosis appears promptly, usually within fifteen minutes from the onset of the bleeding. The increase is in the polymorphonuclear leukocytes and the height of the leukocytosis is reached in seven or eight hours and then decreases to normal usually within the next twenty-four hours. *The leukocyotsis can hardly be due solely and primarily to a new production of cells. It is too sudden. It would seem more likely a withdrawal of leukocytes from internal reserves. That, however, new red and white corpuscles are produced after hemorrhage is shown by the appearance of immature cells in the circulation, but this is not an immediate or early result of hemorrhage.

I attempted to simulate internal hemorrhage by bleeding rabbits by heart puncture under ether and immediately injecting the blood into the peritoneal cavity. The leukocytosis in this case after the animal had overcome the shock of the operation was usually of longer duration than when the bleeding was from the ear vein. It persisted two to three days suggesting that it was partly due to absorption of the blood in the peritoneal cavity. Sterile fresh blood of one rabbit injected intraperitoneally into another produced leukocytosis. Sterile citrated blood from an animal's own circulation, taken by heart puncture and kept on ice three days until the white blood count was back to normal, produced leukocytosis when injected intraperitoneally. This is in accord with the inflammatory reaction described by Hunter following intraperitoneal transfusion.

*Note: Only ten to twenty cubic centimeters of blood can be drawn from a large sized rabbit's ear. The shortened coagulation time of the blood as a result of the bleeding makes it impossible to withdraw more.

Most of the theories of leukocytosis and most of the experimental work have been concerned with toxic leukocytosis. Ehrlich believed leukocytosis due to chemotaxis exerted by micro-orgaisms or toxins on the reserve of leukocytes present in the bone marrow. Goldscheider and Jacobs explained leukopenia and leukocytosis as due to a negative and positive chemotaxis, the first repelling the leukocytes into the capillaries of the internal organs, especially the liver, spleen and bone-marrow, the second attracting them into the circulation. Wells has slightly modified this view, suggesting that leukopenia is due to positive chemotactic attraction not a negative chemotaxis resulting in a transfer of leukocytes

to the internal organs where the organisms have lodged.

The conceptions of leukocytosis following hemorrhage have been influenced by these views. Probably in the leukocytosis following internal hemorrhage with its local inflammatory reaction chemotaxis from the extravasated blood is a factor as Dold supposed. But probably in all leukocytosis following hemorrhage there is also a mechanical factor, leukocytes being swept into the blood stream by the passage of lymph into the circulation in the effort to restore blood volume. I was impressed with this idea from the fact that leukocytosis was absent when blood withdrawn from the ear vein was replaced immediately by 7% gum acacia in physiological saline, the substitute for lost blood suggested by Bayliss. Here there was no leukocytosis presumably because there was no loss of blood volume and no passage of lymph into the blood stream. *When blood was withdrawn from the ear vein and replaced by physiological saline leukocytosis followed, the saline serving for but a brief period to keep up the blood volume.

To conclude:

1. Hemorrhage both external and internal is promptly followed by a polymorphonuclear leukocytosis.

2. The appearance of the leukocytosis may be delayed by shock.

3. The leukocytosis is probably due at the onset to entrance of white cells normally withheld from the circulation, later augmented by new cells produced in the bone marrow.

4. The leukocytosis is probably brought about by several factors; chemotaxis and a mechanical factor are to be considered.

5. In cases of possible concealed hemorrhage a series of white blood counts beginning with one approximately normal may be of value in diagnosis.

*Note: Interesting but aside from the point was the observation that after the injection of acacia solution the usual 1% acetic acid solution for diluting blood to make white cell counts could not be used since it prevented complete laking of the red cells. Masses of broken and distorted red corpuscles made a white cell count impossible for about fourteen hours after the injection of the acacia solution indicating that the acacia was still present in the circulation. Plain distilled water was used satisfactorily for dilution. The acacia solution was not without dangers to the animals.

References

1. Cannon J. A. M. A. Vol. 70: 526.

2. Crile Hemorrhage and Transfusion.

3. Dold Ber.klin.Wochen. Vol. 53, No. 48, p. 1285, 1916.

4. Goldscheider and Jacobs Zeit. f.klin. Med. Bd. 25 p. 373.

5. Hunter J. Anat. & Physiol. Lond. Vol. 21 p. 138, 264, 450.

6. Ehrlich Die Anaemia in Nothnagels Specielle Path. und Therapie 1918.

7. Wells J. Infect. Dis. Vol. 20: 219, 1917.

8. Bayliss Proc. Royal Soc. 1919, 89,380.

THE MEDICAL PRACTITIONER AND THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

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Field Director American Society for the Control of Cancer

Among the most important public health problems confronting the medical profession today is that of

cancer control. It is possible to make a division of public health movements into several groups, depending on the amount of educational work which must be carried out before the program can be successful. In one group we find such diseases as Typhoid Fever, Malaria, and Yellow Fever which may be controlled simply by educating a few individuals who possess the necessary power in a community to place the program in operation after they have been shown the desirability of such a procedure. This type of activity is relatively simple because it depends upon the education of a few individuals. Unfortunately, the diseases that can be controlled in this manner are among those which usually do not exact from the populace the greatest economic toll.

Another group of diseases may be effectively dealt with through police power and here again we depend on the education of a few members of any given community. For the most part the diseases which may be controlled by this means we refer to as "communicable" and usually they can be very effectively dealt with by placarding, isolation and quarantine.

There is another group of diseases which are not communicable and in which the education of but a few members of the family is not sufficient to affect the mortality rate. Here, we find cancer, which depends for its ultimate control upon the education of every single adult of the community, with reference to the early signs and symptoms of the disease, for only in its early stages is cancer curable. With the present attitude of the public to seek medical advice only when they are aware of distressing symptoms, they must be told that early cancer is usually painless and that proper treatment cannot be instituted until they have sought the advice of a physician.

The medical profession is interested in all types of medicine whether preventive or curative. As a matter of fact, there really is no hard and fast line of demarcation between preventive and curative procedures any more than there is a dividing line between the metals and the non-metals. The medical profession is interested in all problems of public welfare but when it comes to matters concerning public health they are the only ones who through tradition and training are capable of handling the problems which present themselves for solution. It is the only profession at the present time that is engaged in real preventive medicine and it is the profession of election for this type of work. Usually public health movements have been initiated by the medical profession but in many instances the work has passed into the hands of the laity because the members of the medical profession have been pre-occupied with other important problems.

What we have said with regard to the attitude of the medical profession towards public health work clearly emphasizes the need of control by the medical profession of all public health movements. The profession is particularly interested in the problem of cancer control not only because it is of great humanitarian interest but because of the further fact that cancer is one of those conditions in which it has been clearly demonstrated that the medical profession is the only one cap-

able of offering a solution. While sanitary engineers, epidemiologists and others may be of great value in the conduct of specific public health movements their training and experience does not make them capable of helping in cancer control. The slogan of the American Society for the Control of Cancer that "Early cancer is curable if you will but consult your medical practitioner in time," again clearly emphasizes that the physician is the only one capable of reducing the mortality from cancer.

Another interesting feature of the movement for cancer control is that the establishment of diagnostic clinics during National Cancer Week is of some educational value to certain members of the medical fraternity because important points of differential diagnosis between early carcinoma of tongue, for example, and primary luetic ulcer, are demonstrated. The cancer movement in this respect, is one of the few that attempts to repay the physician for the great effort he has expended in its behalf.

It has been claimed by some of the unthinking individuals among the laity that preventive and curative medicine are diametrically opposed. They do not realize that there is, in the last analysis, but little difference between preventive and curative measures. For example, all physicians take blood pressures and make urine analyses durthe course of a pregnancy and not by the wildest stretch of the imagination can this be interpreted as a curative measure—it is a preventive measure pure and simple.

Through various educational movements which now are being conducted to instruct the public with regard to conditions which are definitely preventable; the great mass of the people are gradually coming ot realize that the physician must be looked upon as a teacher and advisor rather than one who is consulted only when symptoms of a diseased condition have manifested themselves. The physician, too, realizes that this teaching attitude is appreciated by the public for by this means he is able to prevent premature deaths among the clientele. Not only does he spare the patient in question for future usefulness, but, more important, he does not divorce the rest of the members of that particularly family. The physician realizes that the most appreciative patient is one who, through early advice and proper instruction, has been saved from untold suffering and an untimely death.

All health movements if properly managed and ethically controlled by the medical profession will not only eliminate certain objectionable features present in some of them as now conducted by the laity (who have no appreciation of medical ethics) but such activities will help consolidate the medical profession against the ever increasing influence of the cults. It is true that we as a profession, do not heartily approve of certain public health movements now in progress, because they do not conform to our ethical code. If they were controlled by the medical profession this objection would be removed.

It must be realized that the cults never would have existed had the medical profession taken a definite stand against them, but realizing that "Imitation is the sincerest of flattery," we have allowed them to go on—to exploit the public until

even the great mass of the people has recognized the lack of sincerity which prompted the various movements.

The proper extension of these ideas relative to organization in order to control public health problems contains within it the answer to the proponents of the most preposterous type of activity known as "state medicine."

The organization for cancer control is dependent upon the activities of the medical profession; and therefore the units upon which the organzation is built are the State and County Medical Societies. The whole movement has been endorsed and approved by practically all national, sectional, state and local medical and surgical bodies, because it is entirely controlled by the profession itself. In the perfected organization for cancer control, we have the ground work to handle other problems of a public health nature; be they ones already in existence or future ventures. By proper organization, too, we shall be in a stronger position to abort detrimental legislation, whether directed at us or to legalize the ignorant cults. A public health problem directed solely by physicians will do more to properly organize the medical profession than any other type of activity.

It has been pointed out that if we do not seriously consider the "scientific attainments" of the cults, then every preventable death is a reflection on us. It has been claimed that the fact that the patient did not come early enough to us for examination and advice is no excuse—that we, as the only logical profession engaged in the practice of the healing art should have the undivided confidence of the public to such an extent that they will report to us what are very trivial matters and thus give us opportunity to institute proper procedures in time. In the vernacular of the street, it has been suggested that we should "sell ourselves to the public;" which in other words means that there is at the present time a great need of ethical publicity on the part of the profession. It really seems that this would, to a very great extent, increase our usefulness to the community in which we practice. If this is true, then no physician can be so busy that he cannot devote a small amount of time to help in the campaign for cancer education, because by so helping, he is not only advancing his own usefulness to his community but is of the greatest value to his medical brothers and to his profession.

A few members of the laity have explained what they have interpreted as apathy on the part of certain of the medical profession toward preventive medicine, by emphasizing the fact that preventive medicine was diametrically opposed to curative measures. We of the medical profession realize the fallacy of this. Let us consider an analogy from the field of engineering. Suppose that ten engineers were bidding on a contract to construct a road between two adjacent cities. Only one could be successful; but would the others put obstacles in the way to prevent him from completing his task? The answer is apparent. The would not; for they would realize that when the public had seen the value of this road, they would demand similar ones in the other directions and hence the other enginers would

have an opportunity to build some of them. I realize that the above example compares a business conducted purely for monetary return to a profession which interests itself chiefly with humanitarian efforts, but the very few of the public who believe that all persons are actuated by ulterior motives should be answered. The good roads analogy applies directly to medicine, for the medical practitioner realizes that each time the public is convinced that it is necessary for them to suffer with various ailments they demand the removal of others which heretofore they patiently tolerated. An example may illustrate this point:

A friend of mine who for many years was almost an invalid from recurrent attacks of what was then diagnosed "inflammation of the bowel," and for which at that time there was no known cure, was simply forced to allow the condition to exist which undermined his health and lowered his efficiency. At the present time because of the knowledge of the laity concerning chronic appendicitis he would know that an operation requiring him to be at a hospital for but two short weeks, would give him complete relief, and enable him to resume his life's work at a greatly increased efficiency.

Our medical ethics instituted at the time of Hippocrates admit of no change; but our interpretation of them may be broadened to meet the changing conditions; especially those which have been brought about during the past two or three decades. It may be necessary to change our ideas regarding proper non-personal publicity for the medical profession as a whole and for our state and county societies. In this connection I am reminded of the story of the young color-bearer at Gettysburg who had advanced somewhat ahead of the lines, and when ordered back to his position by his commanding officer replied, "Bring the line up to the flag."

RECURRENT VOMITING

Read by Invitation Before the Marshall County Medical Society at Moundsville, W. Va., March 13, 1923

By CLAUDE L. HOLLAND, M. D.

The syndrome or symptom complex we now take under consideration is also designated by the terms cyclic or periodic vomiting. These latter terms are less desirable than the first since they imply a certain regularity of occurrence. Regularity in the appearance of the attacks is not as we have all observed, a characteristic of these conditions.

The first literature, of note, on this subject dates about 1840, tho' it is said to have been described much earlier. The etiology has been much discussed but is as yet little understood. Sex seems to have no influence whatever."

While it is by no means confined to this class, the child with a highly developed nervous system seems to be pre-disposed. Such nervous phenomena as habit spasm, chorea, spasmodic croup and spasmodic bronchitis are of common occurrence in the children afflicted with this condition.

Ptosis and dilatation of the stomach, mechanical defects of the intestines, as well as chronic appendicitis are not infrequently found in the subjects of this malady.

Causative factors of a secondary nature are defective elimination due to an habitual chronic constipation, or an intestinal crisis with fever and diarrhea may precede the attack of vomiting.

Over fatigue, fright or unusual excitement may be the immediately exciting cause.

It has been observed that in the summer, when the child is much in the open, and can run and play more vigorously, thereby promoting elimination, the attacks are less frequent and less severe.

Griffith believes that the condition is "a toxic neurosis occurring in those especially predisposed to it, and that the outbreak depends upon the gradual heaping up in the system of a poison of a nature as yet undetermined. It may be an acid arising possibly in the digestive tract, or more probably in disordered metabolic processes, and that inability to assimilate the fat of the diet is the direct cause in many instances."

That some poison is at work is certainly indicated by the acute degenerative changes in the kidneys, liver, and other internal organs sometimes found post mortem in fatal cases. In these conditions prodromal symptoms are rare, though you will occasionally find a mother who claims to be be able to anticipate an attack by some peculiar action on the part of her child. The attacks occur periodically at intervals of a few days, weeks or months and are without any regularity as to time.

The symptoms in this disease are quite characteristic. Without premonitory symptoms the child will be seized with an acute attack of nausea and vomiting. There is wretching and straining and the nausea is extreme. Early in the attack there may be fever sometimes high, though there is often no elevation of temperature. My own experience is that the younger the child the greater the liability to an elevation of temperature and the more marked the elevation.

Early in the illness the patient becomes very pale, and the prostration is marked and progressive. The eyes become sunken, the loss in weight and muscular tonus is marked and rapid. The skin is dry and acetone bodies appear in the urine, which becomes small in amount. Thirst is extreme and neither food nor water is retained. Water is taken with avidity only to be immediately rejected by the stomach.

Hydrochloric acid is usually present in the vomited material, while according to Rachford free hydrochloric acid is absent in the vomitus in cases of true gastritis.

Evidences of air hunger develop early in some cases and there is an exaggerated sighing respiration.

During the attack the breath will give off a characteristic, sweetish, acetone odor, but physical examination of the organs of the body will reveal nothing abnormal. The urine on examination reveals the presence of acetone and diacetic acid.

The attacks last as a rule from two to five days, occasionally longer and recovery is usually rapid, considering the degree of prostration and emaciation that supervenes.

The prognosis in this condition is on the whole good. Kerley however reports six fatal cases and Griffith reports two cases as terminating in nephritis, one of which died.

As puberty approaches there is a tendency for the attacks to become less frequent and less severe and finally disappear. In some of the cases reported by Rachford these attacks were replaced by attacks of migraine in later life.

It is always important to differentiate recurrent vomiting from other acute affections with which it is likely to be confused. This is especially imperative if it be a first attack, or if the patient be one you have not seen before.

The vomiting which occurs early in attacks of tubercular meningitis may be readily confused with this condition, and a differentiation may be possible only on the appearance of other symptoms of meningeal involvement or by making a lumbar puncture with microscopic examination of the cerebrospinal fluid.

A simple attack of acute indigestion may also be confused with this trouble. In this condition however there is usually a preceeding febrile period, which is followed by two or three seizures of vomiting, after which the child is on the road to recovery.

In the vomiting of an acute nephritis an early examination of the urine for the presence of albumen will clear up the diagnosis.

Intussusception is another condition to be considered. It however is a disease of infancy while recurrent vomiting rarely occurs before the second year and as a rule not until the third year of life. In intussusception there will be blood and mucous discharged from the bowel, and a sausage shaped tumor will probably be felt in the abdomen. In intestinal obstruction the abdomen will be distended and tympanitic while in recurrent vomiting it will be relaxed and sunken.

In acute appendicitis there is pain and abdominal rigidity, and the vomiting is intermittent, while in recurrent vomiting the abdomen is neither rigid nor tender and the vomiting is continuous. It is of utmost importance to differentiate this condition from appendicitis but not always easy to do so especially in the milder cases. A mistaken diagnosis might subject the child to operative interference, and the shock incident thereto together with the effect of an anesthetic on the kidneys, which have been often found to show an inflammatory process, or the liver which has been found in a state of mild fatty degeneration, may determine a promptly fatal outcome. The acetone odor on the breath, the acetone bodies in the urine and a leucocyte count are valuable aids in reaching a correct conclusion.

In the treatment of recurrent vomiting our efforts should be directed primarily to supply water to the tissues and combating the rapidly developing acid intoxication. Otherwise as the hours pass the picture becomes one of shock, and the symptoms of a true acidosis supervene. Restlessness and irritability give way to apathy and drowsiness. The hollow eyes, sunken cheeks, depressed abdomen, pale or ashen color of the skin, together with progressive diminution of the urine, all mark the loss of fluid, with the resulting concentration of the blood, which if unchecked will inevitably lead to a fatal termination.

All food and in most cases medication by the mouth must be withheld. Hot solution of sodium bicarbonate 10 to 15 grains in 2 to 4

ounces of water may be given and if vomited, as it probably will be, it washes the stomach. The same solution may then be tried in spoonful doses at short intervals.

Porter advises the use of milk of magnesia, in small repeated doses, given in crushed ice, and reports good results in some cases.

Proctoclysis of a 10% solution of glucose and soda is in many cases a valuable means of supplying fluid, alkali and carbohydrate to the body tissues. It is surprising how much of this solution will be retained and absorbed in some instances, and what marked benefit may be noted. If glucose is not at hand Karo Syrup may be substituted with advantage. It is not advisable to repeat the injection oftener than two or three times in twenty-four hours, as the rectum is like to develop an intolerance. In some cases this solution may be given by the continuous drop method to advantage, but this is usually found impracticable because of the extreme restlessness.

The subcutaneous injection of normal salt solution furnishes a valuable means of supplying fluid to the hungry tissues. 50 cc. of this solution may be given into each axilla and each flank at one time and repeated after twelve hours if desired.

Probably the best method of supplying these much needed substances to grave cases of this malady is by the intra-peritoneal route, after the method of Blackfan. The technique is extremely simple and almost devoid of danger, and from 100cc to 300cc of a 5% glucose and soda solution may be administered in this way and repeated in twelve hours if found expedient.

Some clinicians, in extreme cases, resort to the intravenous administration of these agents, using a 2% chemically pure sodium bicarbonate, with 5% pure dextrose solution, giving from 50cc to 150cc into the jugular vein, or if the fontanelle is still open into the superior longitudinal sinus.

While the technique is not difficult the operation must be done with extreme care.

The only drugs, aside from the alkalis, that have shown any marked beneficial action in these conditions, are morphine and codeine. These alkaloids, given hypodermically, in doses appropriate for the age of the child are often markedly beneficial. By quieting the nervous excitability and giving the patient rest they often change the whole aspect of the case. The relief is often prompt and in many cases lasting.

The bromides and chloral administered per rectum are advocated by some authorities. I personally have found their use of but little value.

In extreme cases of this condition blood transfusion has been resorted to as a last measure. Kerley reports one very happy result from this proceedure.

When the vomiting has ceased and the patient is able to retain something in the stomach it is imperative, because of the exhausted condition, that nourishment be supplied. It is necessary however to proceed with great caution. The better plan is to begin with the ingestion of hot broth, barley water or rice water, in limited amounts and if these are retained, equal parts of skimmed milk and lime water may be given soon after. A

food that may be given early in many cases, and one that I have found of great value is buttermilk. In cases where it is refused because of its taste, the addition of a small amount of saccharine will sometimes cause it to be taken readily.

Return to a full diet should be gradual but can in most cases be accomplished promptly, since convalescence is as a rule rapid. I use the term full diet advisedly since in the management of these cases, between attacks, it is essential that the diet be restricted and rigidly supervised. These children are found almost uniformly to have a low fat tolerance, and are as a rule unable to metabolize butter-fat in any considerable amount. The milk should therefore be in the form of skimmed milk or butter-milk. The fat of egg yolk is also found to be unsuitable in most cases. A moderate amount of sugar seems to do no harm in some instances, while in others its use is believed to be deleterious.

In general the diet, for between the attacks, best suited to these cases is one containing an abundance of cereals, green vegetables, ripe or cooked fruits, to which a moderate amount of fish, egg white, white meat of chicken, lean of a lamb chop, and crisp bacon are added, together with skimmed milk or butter-milk.

It is imperative that the bowels be freely evacuated every day, using an enema at night if necessary, and once a week or oftener the bowels should be thoroughly evacuated by means of some mild laxative such as cascara or syrup of senna.

The patient's hygiene should receive attention in general. Much time should be spent in the open air, and the activities supervised so as to avoid over fatigue. An abundance of sleep should be obtained and any undue excitement or worry should be avoided. A change of scene, to the mountains or seashore when practicable may have a salutary effect. In short every effort should be made to improve the child's nutrition, increase his physical vigor, and stabilize his nervous system.

Drug therapy between the attacks has not been satisfactory. The greatest benefits have been derived from the alkalies, sodium bicarbonate being the drug of choice. It may be given in doses of from 15 to 40 grains three times daily.

The administration of calcium lactophosphate three times daily after meals for prolonged periods—six months to a year—has been advocated and excellent results are claimed from this proceedure in some cases. I have not however been able to note the results hoped for from its use in a limited number of cases.

400 Locust Avenue.

SOME COMMON ERRORS IN THE CARE AND FEEDING OF INFANTS AND YOUNG CHILDREN

Read Before the Raleigh County Medical Society, March 1, 1923

By DR. A. A. SHAWKEY
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Recently I was called with a colleague to see a case of supposed noma. The child died seven hours later with laryngeal and faucial diphtheria.

As we returned from the visit the doctor said: "I don't see how I

overlooked that condition, but I am going to face it honestly. I think we can learn more from our mistakes and failures if we do face them frankly and honestly, than from our successes."

It might be more interesting and pleasing to you if I should discuss some one of the more or less common diseases, but I select this rather mixed subject because I believe it will be of greater value, if accepted in the spirit in which it is offered; that of helpful suggestion and not as faultfinding criticism.

Some time ago I had my secretary go over the first 1000 case histories in my files and list them, to see what percentage of my office cases were ill wholly or in part because of errors in diet and feeding. We found that 410 of the 1000 cases, or 41 per cent, were due to such causes. A result that would seem to justify the subject of this paper, and that leads us to believe that it will cover a larger part of the busy physician's day's work than any other, and consequently be of more practical value.

Beginning at birth the first common error is the universal instruction to give the baby water. It is all right to give a baby water for a few days until the flow of milk is established, but after that time it is needless and wrong.

Now let us prove this. The baby weighs 7.5 pounds. It nurses 10 times in 24 hours. It gets 2 ounces of milk at each nursing or 20 ounces of milk per day. Milk is 87.5 per cent water. Therefore baby gets 87.5 per cent of 20 ounces or 17.5 ounces of water per day in its normal food.

You weigh 150 pounds. Just 20 times the baby's weight. You should therefore take twenty times 17.5 ounces of water, or a bit less than 11 quarts in 24 hours.

You see that baby gets a much larger proportionate amount of water in his normal food and drink than does the adult. He needs this larger proportion, but he does not need any more.

As further evidence, we occasionally find a baby that is fed perfectly as to quality and quantity of food and as to the interval of feeding, yet whose digestion is disturbed and who is made ill by the giving of additional water.

Perhaps the second error is in regard to the feeding interval. The obstetrician usually gives the mother and nurse very careful instructions to have the baby nurse every 2 hours in the day time and every 3 hours at night, which may be all right for the first 2 weeks. But when this time is up he is no longer in attendance and has forgotten to give further instructions as to feeding.

The result is that in 3 to 14 months the baby is brought in ill because of too frequent feedings.

The obstetrician should as carefully instruct the mother that after 2 weeks the baby should nurse only every 3 hours in the day time with 1 night feeding, 7 feedings in 24 hours; and that at 4 months it should be allowed to nurse only every 4 hours in the day time and not at all at night. Only 5 feedings in 24 hours.

In this connection the importance of absolute regularity in feeding hours must be stressed. Not that a variation of a few minutes is necessarily harmful but if you allow

them any variation they will soon have no regularity at all.

It is essential to impress upon the mother that "regular hours" means the same hours every day, waking the baby if necessary at the feeding time, otherwise she will begin when baby wakes in the morning and follow the prescribed interval from that hour.

It is also very important to stress the point that nothing should be given between feedings. This is especially important some months later when baby is having solid food, otherwise you will find many mothers giving the regular meals and a full bottle of milk between each regular feeding, losing sight of the fact that a feeding is a feeding whether you count it or not. It is surprising how frequently you will find this habit to prevail if you make a careful inquiry, and your success or failure will depend upon its discovery if it does prevail.

Another very common error and one of the most serious is the too great readiness to take the baby off the mother's breast.

So often we hear that the mother's milk did not agree with the baby, which is very rarely true indeed, and almost never does the artificial food substituted agree with the baby as well as did the mother's milk.

Generally the trouble is caused by irregular or too frequent feedings and not by the quality of the mother's milk.

Occasionally the mother's milk does not agree with her baby, but this is generally due to some error in the mother's diet and can usually be corrected without great difficulty.

More often than suspected the baby is sensitive to some protein in the mother's diet, and has colic, with curdy, mucous stools. The article in the diet of mothers which most frequently causes this allergic reaction in the nursing baby is egg. It may be beef, some vegetable or several different articles at the same time, but egg is usually among the offenders.

In case of suspected food sensitiveness, the baby can be tested by the so-called scratch tests with the concentrated proteins prepared by several of the well known pharmaceutical houses, and the articles to which baby reacts eliminated from the mother's diet and all will be well.

Sometimes, and I regret to say very often, the baby is taken from the mother's breast because the mother does not have enough milk for the baby. This is wrong. If you owed twenty dollars and had only five to pay on the debt, would you throw away the five? Of course not. You would apply it on the debt. Just so if the mother has only part enough milk for the baby—do not discard what she has but complement it by a formula.

Breast milk is Nature's food, and Nature is God, and man has no substitute that is in any way comparable to mother's milk as a food for infants.

In this connection let me say that if it is necessary to give a bottle at any nursing time, it is best to give it at every feeding time, after and not instead of the breast feeding. Otherwise the breast feedings are too far apart to keep the breasts well stimulated to the secretion of milk.

The regular nursings and complete emptying of the breasts are the very best means of continuing and increasing the flow of mother's milk.

Suppose for instance, the right breast is nursed at 6 a. m., a bottle is given at 9 a. m., the left breast is nursed at 12 noon, a bottle is given at 3 p. m., one only gets back to the right breast at 6 p. m., after an interval of 12 hours, which interval is too long and the milk "dries up."

Another cause of difficulty in breast feeding in the first few weeks and especially with robust young mothers, is breast milk that is too rich in fat. But do not discard milk because it is too good. Dilute it by giving a little water immediately before the nursing. True that dilutes all the elements of the milk, but not to a harmful degree.

A word about the taking of milk samples for analysis may not be out of place. The first of the milk is very low in fat and the last is very high in fats and a sample taken from either before or after nursing is worse than useless. It is misleading. I frequently see a patient where there has been a complete milk analysis of a sample taken before the baby nursed, with a consequent low fat content; and the consequent giving of extra fat while as a matter of fact the analysis of a proper sample would show that the baby was already getting too much fat, and was being made worse by giving the extra amount of fat.

In like manner I see cases where the milk taken after nursing shows an excessively high fat and the feedings are diluted as above suggested, with equally disastrous results.

Recent investigations have shown that a baby normally gets 40% of its feeding in 2 minutes, and all of it in 10 minutes. Therefore let the baby nurse 2 or 3 minutes and then take your sample of milk, after that allow the baby to complete his meal. This will give a sample of milk, as I have been able repeatedly to show, the fat content of which is practically the same as that of the entire breast feeding.

Usually the content of the milk will right itself in a few weeks and everything goes along smoothly from that time on.

Perhaps the most difficult condition to deal with is nervousness in the nursing mother. This changes the milk in some peculiar manner and gives the baby a real and troublesome colic. But do not take this baby from the breast except as a last resort.

Encourage this mother. Have her get away from the baby 1 or 2 hours every day, during which time have her kept pleasantly entertained, and forbid any thought or mention of the baby. The nursing mother needs rest and change just as does any one else.

No one can safely be on duty 24 hours a day, week after week, yet the nursing mother is on constant duty, and we are prone to forget that she gets no rest or change.

If you will fight along patiently with these cases you will be able in time to get practically all of them to so adjust themselves to the new conditions and responsibilities that they will be able to nurse their babies through successfully.

Then we have the hypertonic baby. Over sensitive. Gastric and intestinal peristalsis so vigorous that it gives him pain and he seems to

have colic. This infant is generally small, and very active. Holds his head up when very young. Jumps when touched. Vomits. Screams when he cries. Is apparently constipated, but when his bowels are moved, has small soft stools.

Do not take this infant from the mother's breast. Give him atropine.

Pylorospasm is the marked example of this condition, but there are many cases of milder degree.

This condition presents a subject of fascinating interest, but we can not go more deeply into it at this time.

Proprietary foods. They are legion, and we swallow them, hook, bait, and sinker, without stopping to inquire what they are.

If a colleague were to prescribe a patent medicine we would call him unprofessional. Yet we all prescribe proprietary foods without knowing any more of their composition than we know of the composition of patent medicines. One is just as unprofessional as the other.

There is no proprietary food that in any way nearly equals clean fresh cow's milk in proper formula.

Proprietary foods! What are they? Let us consider a few of the more common of them.

S. M. A.—It is milk with the butter fat removed and replaced by a vegetable fat then dried and powdered.

Dryco, Klim, etc.—Milk dried and powdered, by various processes. Some with the fat reduced or removed, and some without. Said to preserve all the vitamins intact.

Malted milk—Milk plus malt sugar, dried and powdered. (Horlick's has 67.95% sugar.)

Mellen's Food—Not a food at all. Maltose 58.88%, Dextrins 20.69%, Potassium Bicarbonate 3%, Residue. A good sugar, if used as such but not a food and should not be called so.

Eskay's Albuminized Food—Barley, wheat, oats, egg, milk sugar (54%). The name condemns the food, as egg albumin very frequently causes trouble in children of the ages that such foods are used.

Nestle's Food—Dry milk, cane sugar, ground wheat biscuits. The wheat is changed, in the process of cooking, largely to maltose and dextrins.

Dennos Food—Not a food at all. Wheat and barley flours, baked.

Imperial Granum—Not a food at all. Baked wheat flour. In other words the flour ball that our great grandmothers made. The only difference is that it is made by modern methods.

Ridge's Food—Wheat, milk sugar and sodium bicarbonate.

Condensed Milk, Unsweetened—Milk evaporated to ½ or 1/3 its volume.

Condensed Milk, Sweetened—Milk from which a part of the cream may or may not be removed, evaporated to ¼ its volume and enough cane sugar added to bring the total sugar content up to 50 or 55%.

Sweetened condensed milk is the very worst of all foods for babies, and should never be used. Let me prove it. Borden's Eagle Brand is the type of sweetened condensed milk.

By the directions on the can, for a baby 3 to 5 months old, use 4 teaspoonfuls of Eagle Brand to the feeding. Eagle Brand milk is milk from which about 1/3 of the cream is removed, condensed to ¼ its volume and sugar added up to 55%.

For ease of computation we will call it 50% sugar.

Four teaspoonfuls of Eagle Brand therefore is 2 teaspoonfuls of sugar and 2 teaspoonfuls of condensed milk. The 2 teaspoonfuls of condensed milk is reduced to ¼ its volume, so we must multiply it by 4 which gives 8 teaspoonfuls, or 1 ounce of milk, (from which about 1/3 of the cream has been removed). The baby's feeding therefore is composed of 1 ounce of milk partially skimmed, plus 2 teaspoonfuls of sugar, or a little more.

A child of this age should have 3 to 4 ounces of whole milk with something less than 2 teaspoonfuls of sugar to the feeding.

The analysis of this formula shows: Fat 9/11 of 1%, sugar 5% and proteid 8/11 of 1% to 1%.

Normal mother's milk contains: Fat 2.75 to 4.65%, sugar 5.5 to 7.3% and proteid .9 to 1.8%.

By comparison it is seen that Eagle Brand formulae are deficient in every element, and a study of infants fed upon it shows equally deficient children. You cannot raise a normal baby on Eagle Brand Milk or any other sweetened condensed milk.

These are just a few of the so-called infant foods, and a glance at their composition shows how unwise is their use, except in the exceptionally few cases where there is no other alternative.

The feeding of cow's milk by the simplified method of Dennett is so easy and so far superior to any of the proprietary foods that there is but little to be said in their favor.

Dr. Dennett's method consists in the use of whole milk, water and sugar.

Generally ordinary cane (granulated) sugar is all right. Sometimes malt sugar is required. This is now readily obtainable in the form of Mead, Johnson & Co.'s Dextri-Maltose. Number 3 if baby is inclined to constipation and otherwise Number 1. Dextri-Maltose contains Maltose 51%, Dextrin 42%. In addition No. 1 contains 2% of sodium chloride, and No. 3 contains 3% of Potassium Bicarbonate.

Milk sugar is more expensive and not so good as malt sugar.

Some cases require mixed sugars.

In starting a milk formula, always begin with a weak mixture and increase the strength gradually. Begin with milk 1/3, water 2/3 and sugar ½ ounce in the whole day's feedings. Increase the milk one ounce and decrease the water one ounce daily in the 24 hours feedings up to milk 2/3 and add an additional ¼ or ½ ounce of sugar every third day up to a total of 1 ounce if baby weighs less than 10 pounds or 1½ ounces when baby weighs over 10 pounds, nude. Only in rare cases should more than these amounts of sugar be given, in 24 hours.

Two-thirds milk is the proper strength until baby is 6½ or 7 months old, when it should be increased as before up to ¾ milk. The sugar remains as before.

As many days before baby is 8 months old as there are ounces of water in the day's formula, one should again increase the milk and decrease the water as before, and at the same time gradually decrease the sugar so that at 8 months the baby should be given straight whole

milk. Eight ounces at 4 hour intervals. Five feedings in 24 hours.

The amount to be given at each feeding should be 1 to 1½ ounces more than the baby is old in months up to 8 ounces, which is the maximum.

Drug therapy. The habit of prescribing calomel and castor oil has become quite as common and routine with the profession as the "fogy" ideas of teeth, worms, and the second summer with the laity.

Most medicines are poisonous, and none should be given except for a specific therapeutic purpose, or with a definite therapeutic purpose in mind. Almost daily I have the satisfaction of straightening out, without a dose of medicine, some child that has been unsuccessfully drugged for weeks.

A case in point is Agatha J., age 2 years, 10 months. Referred to me with a diagnosis of epilepsy, having had attacks three times in the preceding 12 months.

She was eating hard boiled eggs, fried potatoes, bread and butter, and coffee for breakfast. Vegetables, eggs, etc., with coffee for dinner. The same for supper as at dinner, including coffee. Between meals she was having apples, potatoes, bread and butter 2 or 3 times, and candy daily.

This child had consumed pints of all kinds of medicines during the year by which she was not in the least permanently, if at all benefitted. All she needed was to be put on a correct and sensible diet, without medicines.

To much cannot be said of the importance of impressing upon the minds of parents the value of plain, wholesome foods, and the evil effects of allowing children to eat between meals; of allowing them candy, tea, coffee, coca cola, sweet cakes, "hot dogs," etc.

We must be teachers, educators; and I am not sure but that the average visit which does not leave something of health education that is more valuable than the medicine or prescription, should be counted as a failure.

There is no "real money" in the practice of medicine, and the doctor who has no ideal or motive higher than the fees he collects is to be pitied indeed.

There are two great ideas or ideals at present permeating the minds of the peoples of the world. The Bolshevik idea (we cannot call it an ideal) of selfish acquisition without service, and the ideal of service without selfish attainment, as exemplified in the mottos and activities of the great altruistic organizations, such as the Rotary, Kiwanis and Lions Clubs and other like organizations.

I fear that there is sometimes a tendency on the part of the busy physician, who is always overworked and underpaid, when pressed by monetary needs, to allow the thought of the money he makes to crowd the higher thought of unselfish service out of his mind.

We should be ever alert in the effort to maintain the high standard of the medical fraternity and to keep before us the idea of service rather than the thought of monetary gain.

By so doing we will be better doctors and better citizens and so render better and more appreciated service, which will in turn bring us greater financial returns.

Discussion

O. B. Lynch, Beckley:

I am glad Dr. Shawkey has appeared before our society. I agree to much he has said. I cannot, however, agree to withholding drinking water from the baby. The human organism is a water cooled motor. The newborn have a body water content of 70%, the adult 58%. The infant has also a higher metabolic rate and therefore a relatively greater water need. This need ought not to be forgotten, especially in hot weather when water should be given freely, preferably midway between feedings.

We should emphasize breast feeding and should teach mothers that breast milk rarely disagrees. I think we may well forget about analyzing breast milk. Sweetened condensed milk was well condemned. Good. Infants so fed may seem but never are normal. As a class they have an exceedingly high death rate.

Simple dilution of cow's milk, as recommended with added carbohydrate is satisfactory. The average infant needs 1½ ounces of milk per pound of body weight. Good sugars to add are cane dextri-maltose as stated, and corn syrup. Use one of the latter in summer when you cannot see the child as frequently as you should. Where the milk supply is not safe and where an ice box is not kept, the use of powdered milk of which Klim is a type ought to be urged.

Cereals and vegetables should be given usually about the sixth month, properly prepared of course. Additions should be made from time to time so that by the end of the first year the child has a taste and tolerance for a considerable variety of foods. This applies to the breast-fed also.

I concur as to castor oil and calomel. Perhaps we have relied too much upon drugs for the good of the babies. Calomel in the presence of a watery diarrhea increases dehydration and hence is contraindicated. We certainly need to know more about the role of diet in infancy. Successful practice among children is chiefly educational and therefore time consuming. Such education of the parents may be summed up, repetition, repetition and yet again repetition.

THE CARE AND FEEDING OF THE NORMAL INFANT

Read Before Marshall County Medical Society, March 13, 1923

By J. A. STRIEBICH, M. D.
Moundsville, W. Va.

It will be my effort in this short paper to present a few illustrations in the care and feeding of the normal infant.

The dependence of the offspring upon its mother for food to supply its primitive needs can only be realized when we remember that one-fourth of the civilized race die during the first year of life, and that sixty per cent of these deaths are due to nutritional disturbances. In the feeding of infants we first must distinguish a normal from a pathological condition, and what constitutes a normal condition. Many physicians are satisfied when they produce an increase in weight and large deposits of fat.

Czerny and Keller define a new born child as healthy when it is

born of healthy parents in the mid-productive period, when it is carried to full term, is free from essential malformities, and is able, with the protection of non-conducting clothing, to maintain a normal body temperature.

Feeding

The only natural feeding for the infant is the mother's milk—especially up to the sixth month of the child's life. Statistics show that the mortality of breast fed children in the first year is much less than that of those fed on the bottle. More mothers are nursing their infants today than ever before, especially do I find this condition at home. The young mother of today is better able to nurse her offspring than was her sister fifteen or twenty years ago. She is more vigorous, more nearly normal than those of an earlier date. We first must learn, can all new born children be nursed by the mother? We find obstacles to nursing upon both the part of the mother and the child, but more rare than is generally believed. All diseases of the mother, whether they are connected with the process of giving birth to the child, or whether they be of an infectious of constitutional nature, are only conditional obstacles. Feeding of the child requires only small quantities of mother's milk, therefore the supply makes no special demand upon the physical strength of the mother. In many respects, nursing is necessary to her own health. Eclampsia, Nephritis and Pneumonia are not always reasons to discontinue nursing. The large loss of blood during childbirth is another cause. On the other hand, marked puerperal sepsis, typhoid fever, severe erysipelas make nursing impossible on account of danger to the child. The same applies to malignant diabetes and epilepsy. The question is divided as to whether a tuberculous mother should nurse her child. Many physicians will not permit the mother to nurse her child on account of general weakness, anaemia, and emaciation, extreme youth and a neuropathic constitution. I do not consider these adequate causes for not nursing. Syphilis in the mother is no contra indication for nursing. Mastitis prohibits nursing from the diseased breast as long as the suppuration continues. Retraction of the nipple which cannot be overcome, and fissures which will not heal, causing great pain, often make nursing impossible. Skill in placing the child to the breast, so that it sucks from the entire areola and not from the nipple alone, and shorter periods of nursing are probably the most successful preventatives for fissures. The nursing mother should change her mode of living as little as possible, avoiding only harmful excesses both of work and idleness. Observations among the poor show that work in factory and home is borne without injury to the health or to the secretion of milk of the healthy nursing mother. Anger, pain, sorrow, etc., have no influence on the quality or quantity of the mother's milk. The nursing woman should take a sufficient amount of suitable nourishment, and not limit herself to any particular diet. She should eat anything that agrees with her. In women with small appetites it is well to vary the diet. For a constipated mother, it is well to recommend foods yielding a large bulk of debris. Excessive eating and drinking of such

foods as milk and rich soups, do not lead to increase in milk production, but cause an increase in fat in the mother. The general hygiene of the nursing mother should be the best that her environment will permit. The drawing pains in the back, which do commonly occur when the child is put to the breast, may be relieved in many cases by supporting the abdomen or by taking a comfortable position while nursing. The breast and nipples require absolute cleanliness. Of the medicinal agents which it may be necessary to give internally to the nursing mother, only Iodine, Bromine and Salicylic Acid are excreted in the milk, and these in absolutely harmless quantities. The occurrence of the menses has in itself no influence on the milk, either quality or quantity, nor does it cause restlessness or digestive disturbances in the child. The new born should be put to the breast of the mother only after twenty-four hours. If the child seems hungry it should be given, from a spoon, a little water sweetened with Saccharine. If the infant sleeps for a still longer time, it should not be interrupted, for many children require no nourishment for thirty-six to forty-eight hours. Some children will suckle immediately and with much force; others will not take the nipple, or let go after a few attempts. Do not use force. Simply put the child back into its crib and attempt to repeat at intervals. You will find, with patience, that every normal child will learn to nurse. The child must not only take the nipple, but the entire areola into its mouth. Nipple shields are dangerous. While they make suckling easier for the child, it makes emptying of the breast difficult, drying up of the milk and undernourishment of the child. One breast should be emptied before the other is given. The giving of both breasts at a nursing is inadvisable, unless a scanty secretion makes this necessary. The infant should nurse from fifteen to twenty minutes and should not be allowed to go to sleep until it has finished its meal. Some children empty the breast in less time. Some stop on account of feebleness or because the breast is empty, or from insufficient food. In this case it is best to weigh the infant before and after nursing. During the first two or three days six feedings in twenty-four hours is sufficient. The infant should be kept quiet; no turning about, jogging on the knee, tossing and so on, for fear of producing vomiting. Regularity should be kept in mind. The mother and child should have plenty of sleep. As to the hours for feeding, there can be no absolute rule, yet there should be regular intervals for each individual. A hearty infant taking a large amount of food at each nursing, the interval will necessarily be longer, while a delicate infant with less appetite, or one with a limited gastric capacity may need more frequent feedings. For the first few days feeding should be from four to six hours apart; after this period from two to two and one-half hours during the day time, with two nursings after ten P. M. until morning. From four weeks to three months from two and one-half to three hours in day time and one feeding after ten P. M. From three to five months, three to three and one-half hours, and from five months to weaning, every three and one-half to four hours, with no nurs-

ing during the night. The child should be awakened for its feeding at the appointed time, and will train itself to awaken at its regular feeding time.

Wet nursing: This is a difficult problem for the physician to solve. We must frequently depend on her friend's statements as to her moral character. We must see that she is physically healthy. We must guard against three important diseases—tuberculosis, syphilis, gonorrhea. A physical examination will reveal tuberculosis, when possibly a Wasserman should be obtained for syphilis. As for gonorrhea, a careful examination of the vaginal secretion should be made. The best proof of the ability of the wet nurse to supply food is to be found in the health of the infant. The age of a wet nurse should be not under twenty-two years of age, and not over thirty-five years.

Weaning. With many women the milk supply diminishes by the eighth or ninth month. Normally developed children will indicate a desire for other foods about the sixth month, taking bread into its mouth and eating it. We should strive to have the mother nurse until the ninth or tenth month. Nursing after the twelfth month generally offers no possible benefit and is often deleterious to the infant. Weaning should not be done in hot weather. Weaning should be done gradually. My plan is to give a mixed feeding at the fifth or sixth month, the second at the following month, and at the ninth or tenth month the child should be weaned. This also gives the mother a chance to rest and build up, to go outdoors for a longer period during the day time.

Artificial Feeding: The problem of artificial feeding is a difficult one, which taxes the physician. No method of artificial feeding can perfectly replace nursing or human milk. When breast feeding is impracticable, feeding with properly modified milk of other animals is necessary. In preparing the infant's food utensils of graniteware are the best. It will require a large pan for mixing, and a spoon for stirring, a funnel, double boilers and large kettles, a bottle brush for cleansing and a glass graduate for measuring. In the selection of a bottle, not only the bottle but the nipple must be taken into consideration. The rubber should be of the best, more infection arising from nipples than from the bottle. The best bottle to select is one with which the shoulder begins at the neck and shapes straightly and directly toward the bottle. A bottle of this kind is easily cleaned and well fitted with a rubber nursing nipple. In cleansing the bottle, it should be first be rinsed with cold and then hot water. The bottle is then cleansed thoroughly with soapsuds and the bottle brush, after which it is rinsed and boiled in water for five to twenty minutes. It is then dried on the outside and sterile cotton plugs inserted in the neck. The nipple should not be too long or too large, as a long nipple will gag an infant and may be the cause of vomiting the whole feeding just as it is being finished. If the baby gets the food too fast it causes colic, indigestion or vomiting. A nipple should be one with a hole that requires the child to obtain its feeding in twenty minutes. My preference of a nipple is the Anti-Colic Nipple. The nipple

should be boiled but once, when new, and should be cleaned as soon as the baby finishes its nursing. I usually instruct the mother or nurse to fill the nipple with dry borax, then allow fresh water to run through, being rubbed at the same time between the thumb and fingers. It is then placed in a cup or jelly glass with cover, containing borax or baking soda solution, and is rinsed before using.

In preparing food for an infant it is best to make up the total amount for twenty-four hours. If water is to be used to dilute the milk it should be sterilized and cooled. Barley water, oatmeal water, etc., can be made up in quantities and kept for two to three days in a cool place. It is always best to dissolve the carbohydrate in water before adding the milk. If this be starch it is usually necessary to boil for one half to several hours. If malt extract is used, it is best to bring to a boil to destroy any enzymes which may be present. Sugars and infant's food can be dissolved in cold or only warm water. Milk should never be added to a warm diluent, whether it be water or a carbohydrate. The quantity of milk, the quantity of water, the quantity of sugar — whether the milk be boiled or not — and the method of preparing, should be stated clearly. The food for the twenty-four hours should be made once each day and as soon as possible after the milk is delivered. The required amount should be placed in the bottle, which has previously been sterilized, sealed with a cotton plug and placed on ice until ready to use. The advantage in making up the required amount for twenty-four hours is to have the bottles uniform. When feeding time comes, have the bottle sitting on a plane surface, firmly grasped between the palms of the hands, the fingers being used to adjust the rubber over the neck, it is then placed in a pan of warm water and allowed to stand until warm, tested by a drop of the milk on the back of the hand until it feels warm. The child should be held in the lap of the attendant, the same as when being nursed by the mother, adjusted at the proper angle, so that no air will be given with the food, and should consume about twenty minutes. It is a deplorable sight to see a child in its bed sucking the nipple and the bottle elevated by a pillow. When milk is left in the bottle after the baby is satisfied, it should be thrown away.

In artificial feeding it is important to gauge the hours of feeding. When we consider that cow's milk mixtures do not leave the stomach for at least three hours after ingestion, and that the stomach needs a rest after its work, it is plausible that a four hour interval should bring good results. My best results, in children after the fifth month, are on a four hour interval. The best hours are six, ten, two, six, twelve midnight. After the ninth month the midnight feeding can be given at ten P. M., which allows eight hours for sleeping without being disturbed. In changing the hours of feeding from three to four hours it should be done gradually. Regularity in feeding is most important. It not only regulates the gastro-intestinal tract, but has a beneficial effect on the nervous system. The amount given is determined by the age of the infant, a little more than the capacity of

the stomach in each bottle. In ordering food, we first must consider that it contains the proper elements to maintain nutrition and to allow growth. Second, it should be digestible, and third it should be the proper quantity. The requirements of the infant to maintain growth and nutrition are Proteids, Fats, Carbohydrates, Mineral Salts and Water. Proteids are the only kinds of food that are capable of replacing the continuous, nitrogenous waste of the cells of the body, upon the condition of which the digestion and assimilation of the other elements of the food depend. The proteid is furnished by the casein and albuminoids found in the cow's milk and human milk. Cow's milk contains three per cent proteid and breast milk one or two per cent, so cow's milk can be made to approach human milk by diluting one third or one half. One third milk will give one per cent protein, one half milk will give one and one half per cent protein, while three fourths milk and one fourth water will give two and one fourth per cent protein. The protein in cow's milk is different than that found in human milk.

Fats. Breast milk contains four per cent of fat. However, infants will not take this amount of fat in cow's milk; it makes it difficult to digest, therefore we give an extra amount of protein and sugar to take the place of the fat. Fat possesses the property of saving nitrogenous waste, so that when these are properly supplied in the food, the entire energy of the proteids may be expended upon the growth and nutrition of the cells of the body without being used up for the production of animal heat. They are also needed for the growth of the nerve cells, for bone and to add to the body weight. Since fat is hard to digest, it is best to use skimmed milk, or to dilute the average cow's milk, giving about four per cent of fats. A mixture of one part milk and two parts water gives one and three tenths of fat, while one part of milk and one part of water gives a two per cent. Sugars are important aids to the proteids, as they supply heat and energy and replace fat waste. Cow's milk diluted three times contains one and one third per cent of sugar. It is necessary to add sugar to the bottle to bring it up to mother's milk. The sugars used are cane sugar, milk sugar, malt sugar. Sugar is considered the most important element in the food during recent years.

Mineral salts are important on account of the rapid growth of the bony structure. The most important salts are the phosphates of lime and magnesium. They are constituents of the blood and digestive juices. Water is necessary for the rapid elimination of the waste in the body.

It is not my purpose in this paper to take up feedings of the different kinds of milk, so we will continue on with the care of the child. The care of the child during the first months and during the first year is very important. After the first year feeding does not concern us so much, so we apply ourselves to the general care of the child. The first important thing is cleanliness. This is best illustrated after birth, in beginning to look after the umbilical stump. The child should be bathed daily, the temperature of the bath should be about 95 F. and the temperature of the water reduced as

the child grows older. It should not be prolonged, no longer than it takes to soap the child over the entire body. The child should be well dried and dusted with rice powder, starch, salicylic or zinc oxide powder. The eyes should be washed with fresh warm water. I do not recommend the daily washing of the mouth until the teeth appear, on account of the danger of the mucous membrane. The pacifier is a deplorable custom, and I am proud to say it is falling into disuse. It is a dangerous weapon in the hands of the infant on account of its frequency as a carrier of dirt and disease germs to the mouth, the mother sometimes softening it with her saliva and its falling on the floor. The infant should be washed, dried and powdered carefully every time it is soiled by fecal discharge. In girls the parts should be cleaned from before backwards, since infection may be carried into the vulva. As for the infant's dressing, he maintains his normal temperature when he is clothed in a shirt, gown and diaper, and covered with a light woolen blanket. The child should be in a room where the temperature is sixty-six to sixty-eight, sleep in his own bed, and the use of hot water bottles discouraged. The old-fashioned cradle is out of date—not that it has done so much harm to the infant, however it establishes a habit which is hard to overcome; the child wants to be rocked. The nursery should be well aired, a daily air bath given from one-half to one hour each day, even in cold weather when the air is mild. When the child is able to be taken outdoors it is best in older children to allow them to walk, rather than to be wheeled in a go-cart. I do not advise the taking out of the infant in winter until after the third month, while in summer I advise going outdoors after the fourth week. The feet of the walking child should be kept dry and warm. If they should get wet it will do little harm as long as they are in motion, but should be dried and clean stockings put on as soon as the child returns home. Until the sixth month the child should be taken up from its bed very little; after this period it can be taken up at intervals and allowed to sit up on the arm or in the lap. By this method the child exercises and sleep is produced. In carrying the child care should be exercised, the hands placed upon the back to prevent injury to the back. Do not encourage standing and walking at the first attempts. When the child is learning to walk, a pen is the best aid, the floor being made of blankets and kept perfectly clean. Cleanliness and training of the child should begin with the day of its birth.

Regularity in all the activities of the infant is perhaps the most important thing in the treatment of children.

ANNOUNCEMENTS AND COMMUNICATIONS

ANNOUNCEMENTS

West Virginia State Medical Association, Fifty-sixth Annual Convention, Beckley
June 12, 13, 14

Headquarters, Hotel Beckley

GREETINGS

Now that you are in Beckley, we want you to have the best time of your life. We have anticipated

your coming and have striven to plan for your comfort and entertainment, and we want you to know that this "old town" belongs to you during this meeting. We hope you will remain for the "finale" and will thoroughly enjoy your visit to Beckley.

MAIL—TELEGRAMS INFORMATION

A booth in charge of competent persons will be located in the lobby of Hotel Beckley, to give you any information you may wish, care for your mail, telegrams, etc. This booth is for your service and we want you to use it at your pleasure.

AUTOMOBILES

All automobiles having the following sign on their windshield, "Doctor Ride With Me," are for your pleasure and convenience. Use them whenever you desire. Don't wait for an invitation to ride—simply crawl in and tell the driver where you wish to go.

HOTEL ACCOMMODATIONS

While our hotel accommodations are not as elaborate as found in other cities of West Virginia, we have obtained every available room in every hotel in the city, and many rooms in private homes. Each room is listed at the information booth, and if you have any trouble getting a room, please call at the information booth and you will be well cared for.

MUSIC

The Beckley Municipal Band will give a concert at the opening session Tuesday morning and Tuesday evening at 6:00 in the lobby of Hotel Beckley. The music for the dance, barbecue and Open House will be furnished by Beane's Orchestra.

CLINICS

The officers of the association have requested that no clinics be held during the meeting. We will comply with their wishes. However, feel free to visit the local hospitals when you wish.

RALEIGH COUNTY COUNTRY CLUB

The Club and Golf Course will be open to the doctors and their ladies during the meeting. You are cordially invited to enjoy the privileges of the club at your pleasure.

VISITING LADIES

Mrs. E. S. Dupuy is chairman of the Ladies' Entertainment Committee. Her telephone number is 271. Mrs. Dupuy will be glad to meet you and do anything possible to assist in making your visit interesting and enjoyable.

The "Spinning Wheel," located one block north of Hotel Beckley, is open at all hours. Miss McCreery is in charge and extends you an invitation to visit the "Spinning Wheel" at your pleasure. The "Spinning Wheel" serves splendid meals, has recreation rooms, music, radio, etc.

There are two full days of entertainment planned for you—the ladies of Beckley welcome you and hope for your days here to be brim full of pleasure.

ANNOUNCEMENTS FOR MONDAY

7:00 to 8:00 P. M.—Registration of delegates and members.

8:00 P. M.—The Council will convene in the parlor of Hotel Beckley.

9:00 P. M.—The House of Delegates will meet in the Black Diamond Building.

ANNOUNCEMENTS FOR TUESDAY

8:00 to 9:30 A. M.—Registration of members, Black Diamond Building.

9:00 to 9:30 A. M.—Band Concert, Black Diamond Building, by Beckley Municipal Band.

9:30 A. M.—Call to order by the President.

Song—America.

Prayer—Rev. B. Lacy Hoge.

Address of Welcome on Behalf of the City—Mayor C. V. Cottle.

Address of Welcome on Behalf of the Raleigh County Medical Society—Dr. A. H. Grigg.

1:00 P. M. The visiting ladies will assemble in the lobby of Hotel Beckley where they will be met by the Ladies' Entertainment Committee and conveyed to Grand View. The scenery at this point is beautiful and we hope all the ladies will make the trip and enjoy that good old-fashioned picnic which the Beckley ladies have planned for you.

5:00 P. M. (or immediately following adjournment of afternoon session)—Automobiles will be parked in front of Hotel Beckley to take you for an automobile ride through the coal fields.

6:00 P. M.—The visiting ladies will be entertained by the Woman's Club at the Christian Church.

6:00 P. M.—Band Concert, Hotel Beckley.

8:00 P. M.—Moving pictures, Beckley Theatre.

8:00 P. M.—President's address; Oration on Surgery, Oration on Medicine.

9:30 P. M. (or immediately following adjournment of the evening session)—Dance for the President, members and guests of the West Virginia Medical Association, at the Armory.

ANNOUNCEMENTS FOR WEDNESDAY

12:00 Noon—Alumni meeting Medical College Virginia, Manhattan Cafe.

1:00 P. M.—The visiting ladies will assemble at the "Spinning Wheel" for a bridge-luncheon given by the wives of the members of the Raleigh County Medical Society.

5:00 P. M.—Automobile ride around Beckley and its environs.

6:00 P. M.—Barbecue at the Raleigh County Country Club. The doctors will assemble at Hotel Beckley at 5:30 P. M. where they will be met by the entertainment committee and conveyed to the club.

8:00 P. M.—The Raleigh County Medical Society will hold Open House at the Raleigh County Country Club.

8:00 P. M.—Movie party for the visiting ladies at the Beckley Theatre. The ladies will assemble in the lobby of the Hotel Beckley at 7:45 P. M. where they will be met by the ladies' entertainment committee.

MEDICAL SECTION

The medical section will meet on the second floor of the Black Diamond Building.

SURGICAL SECTION

The surgical section will meet in the Armory.

GENERAL SESSIONS

All general sessions will be held on the second floor of the Black Diamond Building.

RAILROAD INFORMATION FOR DEPARTING GUESTS

Taxis leave Hotel Beckley for Thurmond making connections with C. & O. trains for the East at 4:30 A. M., 12:00 noon, 7:30 P. M.; for the West, 11:30 P. M., 7:30 A. M. and 12.00 noon.

Taxis leave Hotel Beckley for Harper and Lester making connections with **Virginian trains** for the East at 11:00 A. M. and 3:00 P. M.; for the West, 6:30 A. M. and 3:00 P. M.

CHAIRMEN LOCAL COMMITTEES

Dr. A. H. Grigg, Entertainment.
Dr. J. E. Coleman, Arrangement.
Dr. C. S. Smith, Finance.
Mrs. E. S. Dupuy, Chairman Ladies' Committee.

WEST VIRGINIA STATE BOARD EXAMINATION FOR NURSES MAY 2, 1923

1. Where is the lachrymal canal? What is its use? (b) What main artery supplies the uterus with blood? (c) What artery is generally used in feeling the pulse?

2. What separates the thoracic and abdominal cavities? (b) Name the organs found in the thorax. In the abdomen.

3. Define epistaxis. Give first aid treatment. (b) In bleeding from a ruptured vein of the leg where would place the compress, above or below the bleeding point?

4. Name four well known antiseptics and give strength for using.

5. In nursing a post-operative case what symptoms would lead you to suspect an embolis? What would you do?

6. (a) Name three hypnotics and the dose of each. (b) Name two emetics and the dose of each. (c) Give the dose of the following drugs: Tincture of Nux Vomica, Tincture of Digitalis, Caffein Citrate, Bismuth Subnitrate, Sodium Bromide, Tincture of Aconite?

7. Give the symptoms and treatment of poisoning from Natural Gas.

8. Differentiate between unconsciousness produced by (a) Alcohol, (b) Opium, (c) Apoplexy.

9. (a) What is the best substitute for mother's milk? (b) Give formula for modifying cow's milk for an infant one week old.

10. Mention five things it would be better for a nurse not to discuss with her patients?

11. (a) Outline diet for a case of pneumonia. (b) For a case of Typhoid Fever.

12. Name chief heat and force producing foods. (b) What three foods contain the most albumen?

13. Outline the nursing care of Measles.

14. Name the two most common ways that the germ of Tuberculosis is spread.

15. Outline briefly the after care of a patient operated on for a lacerated cervix and perineum.

16. (a) Define lochia. (b) What are the danger signals you would consider in connection with it?

17. (a) Give the treatment of the eyes of a new born infant. (b) Give treatment of the cord.

18. Define (a) Meconium, (b) Mastitis, (c) Ectopic gestation, (d) Eclampsia.

19. (a) Why should women be particularly interested in the subject of Cancer? (b) Define Epithelioma.

20. (a) Name two methods of transfusion; (b) three indications for blood transfusion.

The Board of Examiners for Nurses has the same criticism to offer which has been made for the past three years: That too little consideration is given to the preliminary training of the pupil nurse. The state law is very explicit and is as follows: "The applicant shall have 'at least one year of high school training, or its equivalent'."

That there have been some very manifest sins of omission on the part of a few of those who are the teachers of these applicants, witness the answers of some of the questions.

"The umbilical artery supplies the uterus."

"Mastitis is a lack of cleanliness of the nipple."

"Epithelioma is a tumor of the uterus."

"Epithelioma is a skin which covers the entire body."

"Epithelioma is enlarged thyroid gland and characterized by staggering and protrusion of the eyes."

"The lachrymal canal is in the back of the mouth and in mastication is used to carry food into the oesophagus."

"The lachrymal canal runs thru the mouth, ending in the lungs and used for breathing."

"Epithelioma is a tumor of the leg."

"Organs in the thorax are: liver, spleen, kidneys and heart."

"Ectopic pregnancy is in the filopeena tubes."

"Mastitis is information of the mastoid glands."

"The lachrymal canal lies between the thorax and abdomen and carries off the waste material."

It is not a lighter vein, nor to excite risibility that the Board publishes these absurd answers, but rather to bring notice to the teachers and lecturers of nurses a series of errors and let them place the responsibility where it rightfully belongs.

FRANK LE MOYNE HUPP
President of the Board for the Examination of Nurses

Dear Editor:

As Chairman of the House Committee on Medicine and Sanitation, in the present session of the legislature, I feel it my duty to explain the attitude of the physicians in the legislature in regard to certain legislation particularly the famous Chiropractic bill.

First, I wish to state that we doctors in the legislature, like 95% of all doctors, who have spent their time and energy keeping pace with science and the art of healing, are very susceptible to the underhanded scheme of things which unfold themselves in legislative halls.

And here let me say that if there are men in the profession who can do better than we did, then for God's sake, let them sacrifice two or three thousand dollars, as some of us did, and apply for the job in 1924.

In regard to the statement made to Reporter Harry M. Hall by Mr. Beneke, of Ohio County, I wish to say that this statement was not only in line with Mr. Beneke's stand on the question, but that of every lawyer in the House except Speaker Byrne. They were lined up for the bill and had to have some excuse for their doctor friends.

The fight for the bill was headed by a famous lawyer from Huntington, with the result that every lawyer in the House, holding true to the legal profession, lined up for the bill. Moral: Let the medical profession also stand together in political affairs or sleep on and take the consequences.

Regardless of how the doctors stood on the Chiropractic bill, Mr. Beneke's attitude toward the Chiropractic bill would have been the same. I do not blame Mr. Beneke for trying to square himself with the medical profession. He needs your votes, and, according to past actions of medical men with regard to their own interests, he will likely get them.

Here is the truth about the Osteopathic bill. This bill gave them a separate examining board. That is all. They take the same examinations that we take, on the same branches, with the same percentage required for passage, while the Chiropractic bill is a bill legalizing a fake trade with no requirements for those now practicing in West Virginia.

This (the Chiropractic) bill being in the Committee on Judiciary, whose chairman was the proponent of the Osteopathic bill, which bill was in the Committee on Medicine and Sanitation.

Now it became apparent that unless the Committee on Medicine and Sanitation recommended the Osteopathic bill for passage, the Committee on Judiciary would recommend the Chiropractic bill for passage without amendments, which, if done, would assure its passage by both houses.

By yielding to the Osteopathic bill we were able to speak death to the Chiropractic bill by amending it so that all would come under the law and meet the requirements within one year or leave the state, which 98% would have been forced to do had the bill passed as amended by the House.

I understand, from what I have been told, that the Chiropractic bill had its "spine adjusted" between the House and the Senate by the crooked advocates of the bill.

I do not know the kind of bill the Senate had for consideration, but I do believe had the bill been made a law as it passed from the House, the question would have been settled for all time, and the fake methods of Chiropractic would have been left entirely in the hands of a

few medical men who have been failures in medicine and had to resort to faking the public for a living.

Before the medical profession strikes too hard at the physicians in the House of Delegates, they should consider the fact that the bill was taken away from them and placed in the hands of the wily legal profession, and that the bill was used in the House as an exchange for votes on the capitol question and other bills.

Do not believe the statement in the Medical Journal that the doctors were "inefficient, negligent and not on their toes." It's true that some were passive on the question, but some of us, along with the State Health Commissioner, sweat blood over this question.

And do not forget that the alarm clock went off before more than a score of doctors throughout the state awoke to the fact that their interests were at stake.

Now are we going to sleep on and be awakened again, in 1924, by the "cackling of the geese when the enemy is at our gates;" or are we going to orgnaize the doctors, druggists, nurses and allied professions into a powerful political unit and say to the other organizations, already in the political pool, that we need a cleansing bath and are coming in too?

Each doctor, druggist or nurse is a political unit in their community and if organized and instructed we can have our rights respected by sending men—not demcorats, not republicans, but men who will do the right thing regardless of politics. Beckley and June is the place and time.

I wish to commend the Tri-County Medical Society for voting thanks and appreciation to Dr. Calvert of their society, who did his duty, but no more than the rest of us did for which we receive nothing but a statement that we were negligent and "not on our toes."

I wish, also, to say that my efforts as a representative of the profession, as well as the state, in the legislature suffered greatly by the unsuccessful effort of a Beckley physician to obtain for himself a bit of newspaper notoriety and unethical advertising.

However, since his efforts reacted to his disadvantage and I am slowly convalescing, we both may recover provided the dose is not repeated.

Yours truly,

DR. R. D. HUNTER,
Jarrold's Valley, W. Va.

We wonder sometimes as to just what position physicians, medical associations and medical journals occupy in the minds of outsiders. The following letter and reply is published that our members may see what comes to the Editor from time to time.

Washington, D. C.
March 26th, 1923

Advertising Manager,
West Virginia Medical Journal,
Huntington, West Va.

Dear Sir:

We are interested in buying the rights to a proprietary remedy or

medical specialty sold through drug stores.

We are not interested in purchasing a mere formula or a prospective business. We are interested only in businesses which have been established long enough to have some sale.

It has occurred to us that in your position, you will probably be able to put us in touch with the owners of any such business on the market, or a business which might need reorganizing or additional financing.

Very truly yours,

(Signed) H. BURKE,
For National Pictorial News, Inc.

April 2nd, 1923

Mr. H. Burke,
National Pictorial News, Inc.,
Suite 704, Metropolitan Bk. Bldg.
Washington, D. C.

Dear Sir:

I have received your letter of the 26th Ulto., and I am not in a position to tell you of any proprietary remedy or medical specialty sold through drug stores to the people. Unfortunately it has been my observation that these proprietary remedies and medical specialties which are advertised to the people are not a good thing.

While it is true that the original formula might have had some virtue in special cases, or for certain patients of the originators, yet at the present time the people at large have not received sufficient medical education, particularly in the matter of diagnosis, to be able to intelligently prescribe for themselves. Until this time arrives I do not believe that the advertising to the public of remedies for this and for that and the other ailment, or blanket remedies for all the ills the human flesh is heir to is an advisable procedure.

Very truly yours,

JAS. R. BLOSS, Editor.

American Medical Association
San Francisco, June 25-28, 1923

Cincinnati, O.,
May 11, 1923.

Dr. R. A. Ashworth,
Secy. W. Va. Medical Assn.,
Moundsville, W. Va.

Dear Sir:

For your information, take pleasure in advising that the "President's Special" train to the above convention will be operated on the following schedule.

Leave St. Louis 9:00 A. M., via Missouri Pacific, June 19th.

Arrive Kansas City 5:20 P. M., via Missouri Pacific, June 19th.

Leave Kansas City 5:45 P. M., via Missouri Pacific, June 19th.

Arrive Colorado Springs 2:00 P. M., via Missouri Pacific, June 20th.

Leave Colorado Springs 10:53 A. M., via Denver & Rio Grande, June 21st.

Arrive Salt Lake City *12:25 P. M., via Denver & Rio Grande, June 22nd.

Leave Salt Lake City *11:40 A. M., via Western Pacific, June 23rd.

Arrive San Francisco 5:45 P. M., via Western Pacific, June 24th.

*Westbound trains arrive Salt Lake City on Mountain Standard

Time and department on Pacific Standard Time.

This train has been named "Our President's Special" by members of the Southern Medical Association, because it will carry their President, Dr. W. S. Leathers, State Health Officer of Mississippi and a Section Officer of the American Medical Association, and Mrs. Leathers. Dr. Seale Harris, for many years Secretary-Editor and late President of the Southern Association, has also made reservations for himself, wife and daughter.

At the World's Fair in 1915, the above route justly received the official reward of "The Scenic Route of the World." It takes the passenger along the banks of the picturesque Meramec River, through the foothills of the Ozark Mountains and along the banks of the Missouri River to Jefferson City (the capital of Msisouri), through the best portion of the agricultural section of that State to Kansas City, across the great Wheat Belt Section of Kansas and on to Pueblo, Colorado Springs (Manitou, Pike's Peak, Garden of the Gods, Cave of the Winds, etc.) Denver, Grand Canyon of the Arkansas, The Royal Gorge, Tennessee Pass (more than ten thousand feet above sea level—The Continental Divide), Eagle River Canyon, Canyon of the Grand River (through all this in special open-top observation cars), Glenwood Springs, Salt Lake City, over the cut-off of the Great Salt Lake and through the famous Feather River Canyon—one thrill and delight after another until you reach your convention city.

The low rate, round-trip, summer-tourist fares will be in effect for this meeting. Tickets will be on sale May 15th to September 30th, will permit all stop-overs desired and be honored for final return passage until October 31st. Tickets sold at the above rate may be routed via any direct route to St. Louis, thence via the above to San Francisco, returning via the same or any other direct route, or your return trip may be made via Portland and Seattle at an additional cost of $18.00.

All lines operating into St. Louis from points east thereof have excellent trains that make connection with the "President's Special."

We would greatly appreciate your promulgating this information to other members in your territory and if you, or any of the other members, desire to take advantage of the exceptional scenic attractions offered by this special train service, kindly advise and we will promptly quote all rates desired, suggest convenient schedules for your entire trip, secure Pullman reservations for you and render all other assistance possible.

Anticipating the pleasure of being called upon to assist you with your transportation arrangements, we beg to remain,

Yours very truly,

A. F. TINSLEY,

General Agent Passenger Dept.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

C. R. ENSLOW, M. D.
J. E. RADER, M. D. - Assistant Editors
W. E. VEST

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

Editorial Office: 804 Lincoln Place, Huntington, W. Va.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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DELEGATE TO A. M. A. 1923-24: Jas. R. Bloss, Huntington; Alternate, M. V. Godbey, Charleston.

COUNCIL

FIRST DISTRICT: H. P. Linsz, Wheeling, two-year term; C. G. Morgan, Moundsville, one-year term.

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SIXTH DISTRICT: R. H. Dunn, Charleston, one-year term; B. B. Wheeler, Beckley, two-year term.

THE PREVENTION OF SIMPLE GOITER

When one sees the word Goiter it is more than likely Switzerland automatically comes to mind. We associate them because of the lectures we heard in our student days, when we were told of the great numbers afflicted in that country.

Of recent years we have awakened to the existence of far greater numbers of these cases in certain sections of the United States than we had suspected. This discovery has been made, probably, because of the medical inspection of the school children throughout the country.

That West Vriginia is one section in which this is prevalent, especially among girls during the years of adolescence, has been brought before us. This has been remarked upon by the medical inspectors of schools of the various cities of the State. Particularly is this true of the southern section.

Dr. Ireland, Commissioner of Health in the city of Charleston, in his report for 1922 gives the in-

formation that the last examination of the girls of that city shows a decrease of 40% in this disease since treatment in the schools was instituted some three years ago.

Dr. O. P. Kimball in the Public Health Reports (Vol. 38, No. 17) for April 27, 1923, has a rather comprehensive article. (First published in the Am. Jour. of Public Health for Feb. 1923, Vol. XIII, No. 2.) In this article a report of the work in the schools of Akron and other Ohio cities is detailed, as is also a report of the results in Switzerland. The results where this preventive treatment has been instituted have been little short of marvelous.

An interesting point is that in the endemic goiter districts there are a large number of cases developing in women during pregnancy. Observation leads me to believe that in the past few years there has been a noticeable increase in this respect among the pregnant women of this section.

The therapeutic investigations of Kimball and others, together with the report of Dr. Ireland, clearly show that this is one disease which can be prevented, or, where it has already begun to appear, cured. The same observations hold true for pregnancy as for adolescence.

This being true every family physician, as well as the school physicians and obstetricians, should make this one of the important matters in his routine care of his families in which there are adolescent girls or pregnant mothers.

THE TRAINING OF NURSES

Again Dr. Hupp has sent in the list of questions asked of the candidates for registration by the Examining Board for nurses. They will be found on another page of this issue.

A careful examination of this list certainly does not reveal any difficult or so-called "catch questions." Indeed it would seem to be an extremely easy one to pass and yet a fair test of the training of the young women who have been graduated from the training schools of the various hospitals of the State.

It is when we proceed to read his letter transmitting the list to the Journal that we lift our hands in horror and feel constrained to hang our heads in shame.

To read some of these answers certainly makes one wonder if patients are safe in such untrained hands. They surely cannot be regarded as well-trained nurses.

We wonder how those responsible for the instruction of young women coming to them trustingly to secure an education for the profession of nursing, can square themselves before their own judge, conscience, when they read this letter.

It is surely a dishonest thing to graduate a woman as a nurse who does not know whether the spleen, liver and kidneys are in the thoracic or abdominal cavities. Not only is it dishonest but it is a disgrace to the hospital training schools of the State.

No wonder that the laymen feel just a little doubtful of graduate nurses, hospitals and physicians and try to refrain from calling upon any of them if it can possibly be avoided.

No wonder cults of one kind and another flourish as green bay trees. Would any of us wish to trust ourselves or our loved ones, our very lives and theirs to such graduate nurses, our hospitals graduating

them or to physicians responsible for their training or lack of training?

This is **serious.**

GROUP PRACTICE

Although the system of practicing medicine by the group method is spreading rapidly throughout the United States, it has not as yet invaded Rhode Island except to a very limited extent. We venture to suggest that local medicine is fortunate in not having succumbed to the latest idea in medical practice.

Group practice is as old as the science of medicine itself, and dates from the Greek era, where it was practiced under ideal conditions. At first thought it is so fascinating in its concepts as to be well nigh irresistible. The patient is brought before a group of physicians, each one skilled in a particular branch of medicine. His symptoms are carefully studied and a complete physical examination is made. Is it possible that he should receive any advice except the very best known to modern medical science? Under ideal conditions, the answer is—No.

We are living and practicing under far from our ideal conditions. In group practice as at present established, a group of younger men, each specializing in some particular line, is brought together by an older and well established man, often times a surgeon. The clinic may even take the name of the older man, and be carried on largely for his benefit. It provides an easy method of having laboratory and X-ray examinations performed with the least inconvenience to both patient and surgeon. In sizing up a patient as a surgical risk, it is an ideal arrangement to have the examinations of heart, lungs and kidneys and the search for foci of infection carried on under one roof.

There are two evils of group practice as at present carried on, which seem to us to outweigh its many advantages. When in need of consultation, the members of the group will naturally consult with one of his group confreres rather than pick out some colleague in his city who is perhaps much better fitted to pass upon the particular case in question. In this way the patient is not receiving the best advice that it is possible to obtain. It follows from this that many consultations will be held and laboratory examinations made which are more or less unnecessary, and the patient subjected to additional expense and loss of time. No one wishes to deny a patient all necessary aids to diagnosis, and it is false economy to fail to employ every means in our power to to arrive at a complete and satisfactory opinion in any obscure or puzzling ailment. Perhaps the greatest evil of all in this system is the tendency to a weak-kneed policy of "passing the buck" on the part of the physician who is handling the case. He is often in a better position to arrive at the proper solution of the case, unaided except by his own thoughts and experience, than when confused by the unripe suggestions of a lesser experienced but well meaning colleague.

There is a feeling which is fast gaining ground among the profession today that we are suffering from too much laboratory experience; that it may be a hindrance as well as a help, and that what is most needed in medical practice is the fruit of a broad, well rounded experience applied to the problems

of diagnosis and treatment. In other words, we should attempt to emulate the skilled senses of the masters of medicine who have left us a rich heritage in the way of accurate and comprehensive observations of disease. Medicine must and always will have a personal contact, which cannot be delegated to another except in small part.

Dr. Martin H. Fischer of the University of Cincinnati has put the thing well when he says, "The modern doctor has sacrificed individuality—the thing through which alone he has gained his public standing historically or in the present. Never before has he affected a community through mass action, and it is safe to predict that through such action he never—lastingly—will."

Dr. Fisher likens the service of the group clinic to that of the cafeteria, in which one can serve oneself to a diagnosis as one serves oneself to a meal:

"One starts with a numbered card and buys himself at different counters and from different men a general examination, an investigation of the throat, a Roentgen-ray plate of the gallbladder, a dental overhauling, a surgical operation, and a plaster cast for the foot. Each item carries its price, which is punched on the ticket. What the scheme takes no account of is that the patient does not care whether he has Hirschprung's disease, erythema nodosum or pseudohypertrophic muscular atrophy. What he is after is a plain statement of what is the matter with him, and whether he can be 'cured' or not; also there is wanted a little appreciation of his state of mind and some understanding of the economic hardships of his family in the interim of being ill. The food counters do not carry these dishes."

"The medical profession," Professor Fischer says, "will increase or lose its public power only as the collective expression of the people's faith in the individual doctors who touch them." The greatest medical achievements were not those of men working in great organizations, but of individuals utilizing to the utmost each his own opportunities. Boerhaave changed all of European medicine with twelve beds. Corrigan rewrote the chapter on heart disease with only six, and Kulz, whose work fills one-third of all the volumes on diabetes, had only two patients. It is time for the medical profession to discard the commercialism and the selling methods of the store, and to return to the methods of the fathers in medicine. It is a time for physicians with kindliness, tolerance and large understanding, the skill of hands, the skill of mind and the resourcefulness of previous generations.—Ed. R. I. Med. Journal.

COUNTY SOCIETY REPORTS

April 12th, 1923.

A regular meeting of the Cabell County Society was held in the assembly room of the Hotel Frederick on the evening of April 12th, 1923. The President being absent, the meeting was presided over by Dr. A. J. Swezey, Vice-President.

There being no alterations, additions or amendments to the minutes, they stood approved as read.

Under Case Reports, Dr. Wells reported further on his case of Sarcoma of the Ethmoid which he had previously shown before the society. The case shows continued

improvement under deep X-ray therapy.

On motion of Dr. Bloss, seconded by Dr. Belcher, the following resolution was adopted:

RESOLVED: That in the opinion of the members of the Cabell County Medical Society, the welfare of the citizenry of the State of West Virginia is notably concerned in bills now before the Legislature for consideration. That, in our opinion, House Bill Number 886, Senate Bill 359, and House Bill Number 236, Senate 125, and House Bill 235, Senate 141, are needful for the preservation of the health of the citizens of this State.

BE IT FURTHER RESOLVED: That the Representatives of this County be memorialized to lend their support to the passage of these bills and they are urged to actively work to this end.

FURTHER: That a copy of these Resolutions be sent to the House of Delegates from Cabell County, Senator Darnall, the State Health Commissioner and that a copy be spread upon the minutes of this Society.

Dr. Rudeman read a most complete and interesting paper on "Neurosyphilis, a General Discussion of the Pathology, Symptomatology and Therapy of Syphilis of the Nervous System." The paper showed much care and thought in its preparation, was ably presented and productive of an interesting discussion.

Attendance 26.

There being no further business the meeting was adjourned.

OSCAR B. BIERN, M. D.,
Secretary.

A regular meeting of the Cabell County Medical Society was held in the assembly room of the Hotel Frederick on the evening of April 26th, 1923. The President being absent the meeting was under the direction of Dr. A. J. Swezey, Vice-President.

The minutes of the previous meeting were accepted as read, there being no alterations, additions or amendments.

The Secretary made a report to the Society on the number of members for this year, and read a list of non-members resident in Cabell County.

Dr. J. A. Guthrie as Chairman of a special committee to confer with the school authorities regarding physical training in the public schools, reported with the recommendation that this body go on record as favoring physical training in our schools.

On motion of Dr. Belcher, duly seconded by Dr. Hicks, it was moved that the privileges of this medical society be extended to the colored physicians of this county. This motion provoked a most lively discussion but failed of passage when put to a vote.

The election of delegates to the next state convention at Beckley resulted in the election of Drs. Bloss, Vest and Guthrie as delegates with Drs. Hodges, C. Hicks and Gerlach as alternates.

Dr. Belcher as the orator of the evening presented a most excellent paper on "The Effect of Exercise on the School Children of Huntington." The paper was well delivered, thorough in preparation and was productive of much discussion, which was led by Mr. Stoddard, director of physical training in our city.

It was moved by Dr. Bloss and seconded by Dr. Belcher that this

society send a vote of thanks to Dr. H. D. Hatfield for his efforts in preventing the passage of legislation that would have been detrimental to the health of the citizenry of West Virginia. Motion carried.

Dr. Bloss moved that the matter of physical training be continued and that the committee be continued with the request that further information be given the society and that this be made to the Society as a whole for united action one month from this night.

There being no further business the meeting was adjourned.

OSCAR B. BIERN, Secy.

A regular meeting of the Cabell County Medical Society was held at the Hotel Frederick on the evening of May 10th, 1923. The President and Vice-President both being absent Dr. A. K. Kessler presided over the meeting.

The minutes of the previous meeting were read and accepted as read without alteration, addition or amendment.

There being no regular program, the meeting was held informally to hear the various views as to the apparent lack of interest of the members and suggestions made to improve both the attendance and interest. All of the 26 members participating.

It was decided that an attempt be made to form a Doctor's Luncheon Club meeting informally at this hotel for noon lunch. The Secretary was asked to notify the members, all present signifying their willingness to come.

Dr. Fitch moved that at each meeting a committee of three be appointed to present a report of cases, one medical, one surgical and one general. This motion was seconded by Dr. Bobbitt and carried. The President appointed the following committee for the next meeting: Dr. Vest, Medical Cases; Dr. J. A. Guthrie, Surgical Cases, and Dr. J. C. Ford, General.

Bills as presented were ordered paid.

There being no further business the meeting adjourned.

OSCAR B. BIERN, M. D.
Secretary.

Bluefield, W. Va.,
April 19th, 1923.

The Mercer County Medical Society held its regular monthly meeting in the private dining room of the Busy Bee Restaurant. President Bird called the meeting to order and after the minutes of the previous meeting were read by the secretary and approved, Dr. Bird called Dr. R. O. Rogers to the chair. Dr. Rogers then introduced Dr. Beverly R. Tucker of Richmond, Va., who read us a very interesting, instructive and practical paper on Borderline Mental States. This was listened to with great interest by all present. The Doctor said a blood Wasserman and lumbar puncture should be done in all mental cases.

A brief discussion followed by the following: Drs. Rogers, Fox, Hoge, Hare, Walter Witten and P. D. Johnston of Tazewell, Va., and G. G. Rhudy, Dr. Tucker closing the discussion.

The society instructed its delegates to the State Society meeting in Beckley this year to invite the West Virginia State Association to meet in Bluefield in the year of 1924.

Dr. J. F. Biggart of Corinne, W. Va., presented his application for action at the next meeting.

There were nineteen members and five visitors present. Programs for some of the future meetings were read as follows: For May, Drs. J. R. Vermillion, Porter, Hoge and Blaydes; for June, Drs. Fox, Duling, Kirkwood and Hare, for July, Drs. Harloe, Collison, C. T. StClair and B. W. Bird; for August, Drs. W. H. StClair, Wallingford, Todd and Scott.

The society unanimously endorsed the following telegrams sent to Charleston: April 18-23, Senator John Kee, Senate Chamber, Charleston, W. Va. Mercer County Medical Society in session tonight passed resolution strongly condemning the pending chiropractic bill. Seventy doctors in the county are looking to you to do everything possible to defeat this bill. Signed, Albert H. Hoge, Pres. Mercer County Society.

Dr. S. R. Holroyd, House Representatives, Charleston, W. Va. Mercer County Medical Society tonight passed resolution strongly condemning the chiropractic bill and approve increasing state compensation to $600. Impress upon Sen. Kee the full meaning of his attitude in this important matter. Signed, Chas. M. Scott.

Sen. John Kee, Senate Chamber, Charleston, W. Va. If you can vote against the pending chiropractic bill it will be greatly appreciated by the medical profession. Signed, Chas. M. Scott.

The society adjourned at 10:15 p. m.

H. G. STEELE, Sec.

STATE AND GENERAL NEWS

MEDICAL COLLEGE OF VIRGINIA ALUMNI, ATTENTION!

An alumni lurcheon has been arranged at the Manhattan Cafe, Beckley, W. Va., June 13, at twelve o'clock noon. The Alumni of the Medical College of Virginia, the University College of Medicine and the Medical College of North Carolina practicing in West Virginia are earnestly requested to be present. The State Association meeting promises to be the best ever held and quite a number of alumni from out of the state are expected to be present. Business of great moment to Alma Mater will be discussed. Good eats; good talks,; a good time. Per plate $1.25. Be sure to come.

WALTER E. VEST, Secy.

OHIO COUNTY NEWS

After a strenuous year this Society decided to end its more active meetings and take a rest until next Fall, so on April 20th, as a final scientific lecture we had Dr. E. A. Weiss, of Pittsburgh, Pa., his subject being "The Differential Diagnosis and Treatment of Some of the More Common Pelvic Diseases of Women." The Doctor has unusually good clear slides to illustrate his lecture. He has been with us before and seems perfectly at home. He had a differential sign for pregnancy which he stated has worked particularly well, especially with one of his assistants doing it. The assistant in general strikes it most all the time. It is too long to give here. There are times when this reporter would gladly pay railroad fare both ways for someone to help him out of this perplexing

condition known as "Doctor I have not menstruated for one month and three weeks. Now am I pregnant or not? Or can you tell?" Dr. Weiss uses an easy manner of delivery and is conversational in his tones, and while he had a subject difficult to give anything startling about, he was heard by a good crowd and enjoyed. Drs. Reed, Cracraft and Staats were on for discussion, and others participated. Radium as usual came in for a little iridescence. It is a mighty poor gynecological discussion any more that does not have a few applications of radium to liven it up. It is just as well, however, because radium has gravitated to where it belongs even more quickly than most new things.

On Friday, May 11th, this Society will have its annual election of officers, and delegates will be named for the State Assembly. It is an important time for any Society—for the officers, especially the President whom they elect will almost spell inertia or progress according as the man they name thinks. The reporter has seen a good many elections take place in a good many organizations, and what he can't understand is the spirit of levity—like a lot of school boys with a substitute teacher — that at times gets hold of a body of serious men, especially at election time. Then there's the man who only comes to an election and never attends the remainder of the year. It is younger men who must hold the offices. These days there is too much hard work about holding an office and doing it right. Just stop and think the work it must take to get out the Journal. Any one office worth the name means endless correspondence, telephoning, arranging meetings, and hundreds of details. Time was when the President of anything was an honor to be held in a quiet dignified way as a reward for past work. Today in medicine it means fighting charlatans, buying real estate and satisfying the scientific needs of many professional men who are by no means easy to please. So as we are talking of Presidents, Ohio County is saying farewell to Dr. M. B. Williams who has made a big success of the season of 1922-1923, and made a worthy successor to that energetic and successful Ex-President, Dr. D. A. MacGregor.

We believe a good many will go from here to Beckley. Some have to grumble about something or other, and this time it is distance. It is an admirable chance for everybody to see West Virginia first. The scenery they say is as good as can be found, and if these fellows can entertain like they can boost their town, it will be the best meeting we have ever had. It is an agreeable time of the year, and we have had several good jolts lately about not seeing more of each other, and a lot of us here hope to go.

"The Chiropractic Bill" did not pass. When it was up in the Senate and reports reached here of a possible fifteen to thirteen division, passing the bill, there was quite a little activity up here and we certainly did rejoice over the result. There was more in the victory than a mere stopping this Bill. The profession of this State owes the Ohio County Senator and every other one who voted to stop this bill a great deal more than just thanking them. It may be that we can as a body some day reciprocate.

The newly organized Academy of Medicine is out looking for a house. No one seems to want to give Doctors the discounts that they ask of the prfoession when paying their bills. I wonder if some day the State Society can have a "Building of Medicine and Surgery" in Charleston or elsewhere so we can each year go to the same place to have a meeting in our own edifice.

This reporter returns to his favorite obsession, namely, a certain class of lawyers. In the last three years it has seemed to him that there are certain lawyers who rather prefer to be on fracture cases, mal-practice and similar cases. They seem to particularly enjoy bully-ragging doctors, and nothing appeals to them like showing up some respectable doctor as a moron. In the Schwin suit it came out clearly. The lawyers ridiculed the original bill of $5,000 as exhorbitant. It made no difference what the great servcie, $5,000 was a great deal. Dr. Schwin remarked to one that if he had put in the time he (the doctor) had, the bill would have been three times as much and he would have collected it. The writer was taken over the burning sands in this case for saying a Caesarian section was worth $250 to $500. The following clipping illustrates how much more the value of separating two people so they will not be labeled man and wife is worth than separating a wife from a child she would no doubt die in having if she was left to her own powers of endurance is well illustrated. This is from the Wheeling Telegraph:

EXPERT TESTIMONY

Seven local attorneys were called to the witness stand this morning, four for the plaintiff and three for the defendant, in the $2,500 suit of Effie Watson vs. John P. Arbenz on trial in Part II of the Ohio county circuit court before Judge J. B. Sommerville. The plaintiff contends in this case that Attorney Arbenz charged her an excessive fee when representing her in divorce proceedings.

Four lawyers were summoned to the stand by the plaintiff's counsel to answer a hypothetical question as to what they would charge if they had rendered the legal service alleged to have been rendered by Mr. Arbenz. The sum of $500 was the consensus of the opinion of Attorneys Carl G. Bachmann, D. A. McKee, Frank O'Brien and S. O. Boyce. Attorneys Charles J. Schuck, William Caldwell and Judge Frank W. Nesbitt testified for the defense, and their estimation ranged between $2,500 and $5.000.

Drs. Cracraft and Williams have formed a partnership and moved into the new Riley Law Building.

Doctors Wingerter, Sammons and West have also moved into this building.

Dr. Harness moved to Fifteenth street.

Dr. Wilson moved to Thirteenth and Byron.

Drs. Webb and Hall have both suffered adversity in their families. Dr. Webb's daughter suffered from "Mastoid Infection" and Dr. Hall's daughter from appendicitis. Both are doing well.

Dr. Ivan Fawcett was operated on Sunday last for acute appendicitis. The Doctor is making a nice recovery and it is likely he will be able to go to Vienna on schedule.

The reporter here wishes all the other societies an enjoyable vacation somewhere away off from all "Shop Talk."

HARRY M. HALL, M. D.

Another weekly luncheon club came into being Wednesday, May 16 when members of the Cabell County Medical Association decided that the association would meet regularly every Wednesday at noon at the Hotel Frederick, it was decided at a trial gathering at the Hotel Frederick, Wednesday.

Reservations for each of the eighty-five physicians in the organization will be made for the luncheon assembly, it was announced by Dr. Oscar Biern, who is secretary of the Medical Society.

The luncheon period will be taken up with entertainment features and will be a purely social gathering, it was stated. The decision to conduct the weekly luncheons was made by several members of the organization who met in a trial meeting at the Hotel Frederick Wednesday at noon.

"No shop talk" will be one of the rules of the luncheon.

The president of the medical society is Dr. R. J. Wilkinson, Dr. A. J. Swezey is vice-president, and Dr. Biern is secretary of the association.

Dr. A. F. Haynes, 62 years old, 600 Sixth avenue, prominent Huntington physician, died at his home Friday morning at 2 o'clock, after several months' illness resulting from an attack of influenza. Dr. Haynes suffered an attack of influenza five months ago and his rapid decline of health caused him to go to Texas in search of relief but he returned to his home here several weeks ago.

Dr. Haynes was graduated from the University of Louisville School of Medicine in 1891 and later began the practice of medicine in Fayette county, his native home.

He came to Huntington about fifteen years ago and soon became one of Huntington's leading practitioners. He was a member of the Masonic Fraternity and also a member of the Emmanuel Methodist church, south, where he regularly attended church services.

He is survived by his wife; two daughters, Miss Dorothy Haynes and Miss Louise Haynes, of Huntington, and an adopted daughter, Mrs. L. E. Moeber, of Big Well, Texas; and several brothers and sisters.

The Dean of the Jefferson Medical College makes announcement of the election of Dr. Withrow Morse, Professor of Physiological Chemistry in West Virginia University School of Medicine, to the position of Professor of Physiological Chemistry and Toxicology in the Jefferson Medical College.

Doctor Morse was born in Dayton, Ohio, May 7, 1880. He received his early education in the schools of Ohio, and obtained his baccalaureate from the Ohio State University in 1903, followed by the Master's degree in 1904. In 1909 he received the degree of Doctor of Philosophy from Columbia University after which he was appointed to the J. P. Morgan Professor-

ship at Trinity College, Hartford, Connecticut. In 1913 he became instructor in the Medical School of the University of Wisconsin. In 1916, he was made Physiological Chemist to the Michael Reese Hospital, in Chicago, and thereby became a member of the Nelson Morris Institute for Medical Research, and Chemical Pathologist to the Hospital and to the Sarah Morris Hospital for Children under the same institution. In 1918, he was invited to accept the chair of Physiological Chemistry in the West Virginia School of Medicine, where he has successfully taught for the past five years. He is a member of the American Chemical Society, the American Society of Biological Chemists, the Biochemical Society of London, England, and the Society of Experimental Biology and Medicine.

Dr. F. O. Marple of Huntington spent a week visiting relatives at Buckhannon.

Dr. Byrd Hunter of Huntington has returned from Boston where he took some special work in children's diseases at Harvard University.

More than 10,000 doctors and members of their families from all parts of the world are expected to visit San Francisco for the seventy-fourth national convention of the American Medical Association, which opens in the Civic Auditorium on June 25. The convention meetings, to be divided into sixteen scientific sections, will continue for six days.

Drs. J. A. Guthrie and W. E. Neal of Huntington attended the meeting of the Ohio State Medical Association held at Dayton, Ohio, in May. They were accompanied by their wives.

Born to Dr. and Mrs. George Lyon of Huntington a daughter, May 2, at Baltimore, Md.

Dr. and Mrs. J. R. Bloss of Huntington expect to attend the meeting of the A. M. A. at San Francisco.

The meeting of the American Psychiatric Association will be held at Detroit, Mich., June 19, 20, 21, 22. An interesting program has been announced. Dr. L. V. Guthrie, superintendent of the Huntington State Hospital at Huntington, who holds the office of auditor in the association, will attend the meeting. Mrs. Guthrie will accompany him.

Dr. F. W. Groome of Elberton, W. Va., visited his family in Huntington recently. His family will join him soon for the summer.

Dr. A. W. Adkins of Wolfpit, Ky., spent the week-end in Huntington returning home by motor.

Dr. T. W. Moore of Huntington attended the meeting of the American Laryngological, Rhinological and Otological Society, held at Atlantic City, May 10-12.

Dr. and Mrs. W. D. Hereford of Huntington will attend the meeting of the A. M. A. at San Francisco.

Dr. Tom A. Williams, honorary member of the West Virginia Medical Association, has been elected President of the Washington Psychological Society.

MEDICINE AND SURGERY

OSTEOMYELITIS OF THE ILEUM IN CHILDREN

Two cases of osteomyelitis of the ileum occuring in children, aged 9 and 13 years, respectively, are re-

ported by Carl Bearse (Journal A. M. A., April 7, 1923). He says that these cases are often not discovered. The local symptoms are often referred to the hip joint, and not to the ileum. The important factor in diagnosis is tenderness over the ileum, without restriction of motion at the hip joint. The roentgen ray is at first of no help, but is later of decided aid. Owing to the structure of the ileum, there is early perforation, and if the disease extends there are further perforations. While the prognosis in this condition is grave because of proximity to the hip joint and the peritoneal cavity, early recognition and treatment render it more favorable. Serious complications may arise at any stage of the disease. The treatment is early operation with adequate drainage, and removal of dead bone, even if it means resecting the whole ilium.

CAFFEIN INTRAVENOUSLY—THE BEST OF STIMULANTS

Caffein, as a temporary stimulant given intravenously, is the one and only drug which in the experience of W. W. Duke, Kansas City, Mo. (Journal A. M. A., April 7, 1923), never completely fails. If given subcutaneously, however, it fails as do other stimulants. He reports the case of an old man with bronchopneumonia who suddenly took a turn for the worse and became apparently moribund. He was practically pulseless. Breathing was of the Cheyne-Stokes type and labored during the periods of dyspnea. Large, coarse, tracheal rales were audible throughout the ward, owing to accumulation of mucus in the trachea. The patient had been given strychnin, atropin, camphorated oil and strophanthin intravenously, and had shown no response to them whatever. Duke then gave 2 grains of caffein sodiobenzoate intravenously. The patient opened his eyes almost immediately and began to talk. He began to breathe regularly and deeply, and was troubled no further with mucus in the trachea. The pulse became strong and regular. This lasted until the following night, when he again lapsed into the state described and passed away, this time in spite of further use of caffein. This experience has been repeated many times by Duke with almost equally good temporary results. The drug has been used in moribund cardiorenal cases; in uremia associated with coma; in prostate cases with ascending infection; in bronchopneumonia with coma, and in general sepsis with coma. The result in the majority of cases has been temporary, and while the drug has often been repeated two or three times with good effect, the later doses have rarely been as effective as the first. In one case, however, caffein was repeatedly used with the result that the patient recovered from an illness which Duke is convinced otherwise would have almost certainly terminated fatally.

THE DIAGNOSIS OF BRONCHIAL ASTHMA

Charles H. Eyermann, St. Louis (Journal A. M. A., April 14, 1923), stresses the fact that in addition to a thorough physical examination, a painstaking history gives us the diagnostic solution of many of our cases of paroxysmal dyspnea. It is a history that requires patience,

thoroughness, system and intelligent cooperation on the part of the patient. Such a history, with the information obtained from sensitization tests and complete physical examination, makes it possible to restrict the term bronchial asthma to those conditions that result from allergenic reaction. Bronchial asthma is an allergenic manifestation characterized by recurrent attacks of paroxysmal dyspnea, due to spasm of the bronchioles, developing as the result of exposure to a foreign protein to which the individual is sensitized; thus such terms as cardiac, renal, uremic and winter asthma should be eliminated. The application of the term asthma to any other condition is a nosologic error, confusing to the medical profession and misleadng to the patient.

PROPAGANDA FOR REFORM

Aprotein and Aprotine not admitted to N. N. R.—Aprotein and Aprotine are casein preparations marketed as "the foremost tissue and body builders" by the John Norton Co., Columbus, Ohio. Aprotein (formerly designated Aprotein No. 2 Granulated Food Casein) is described in the advertising issued by the John Norton Co. (formerly the Diaprtein Co.) as a "scientifically, specially prepared granulated casein precipitated from fresh skimmed milk, concentrated to a high degree." The Council declared Aprotein inadmissible to New and Nonofficial Remedies because (1) its composition does not agree with a good dietetic casein and was not found to have the composition claimed for it, and (2) it is not only irrational but also a hindrance to therapeutics to market a well known substance like casein under a fanciful name. Aprotine, in the information sent the Council is designated "a sodium calcium derivative," prepared by precipitating an acid calcium caseinate from skimmed milk by the addition of acid, washing the precipitate, mixing it with sodium bicarbonate and drying. A comparison of the analyses furnished the Council suggests that Aprotine and Aprotein are the same. The advertising claims suggest that Aprotine has therapeutic properties, whereas its effects will not differ from those of cottage cheese. The Council on Pharmacy and Chemistry declared Aprotine inadmissible to New and Nonofficial Remedies because (1) the statements made in regard to its composition are indefinite and misleading; (2) the therapeutic claims are unwarranted, and (3) there is no evidence to indicate that this casein preparation presents an improvement over casein—N. N. R. (Jour. A. M. A., Nov. 18, 1922, p. 1786.)

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